

FILE 'CAPLUS, WPIDS' ENTERED AT 02:41:26 ON 21 OCT 2002

L17 129301 S ACID? (2A) (SOLUTION# OR LIQUID# OR FLUID# OR COMPOSITION#)
L18 38 S L17 (L) (MAGNESIUM OR ZINC OR ZN) (L) (LACTIC ACID OR ORGANIC
L19 38 DUP REM L18 (0 DUPLICATES REMOVED)

=> d que l19

L17 129301 SEA ACID? (2A) (SOLUTION# OR LIQUID# OR FLUID# OR COMPOSITION#)

L18 38 SEA L17 (L) (MAGNESIUM OR ZINC OR ZN) (L) (LACTIC ACID OR
ORGANIC ACID#) (L) (SULFURIC OR SULFATE#)
L19 38 DUP REM L18 (0 DUPLICATES REMOVED)

=> d 1-38 bib ab kwic

L19 ANSWER 1 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-575339 [61] WPIDS

DNC C2002-162987

TI Soy milk juice beverage comprises soy milk, juice, gum-based stabilizer and composition comprising amino acid, (in)organic acid and metal ion.

DC D13

IN CARLOTTI, R J; DULEBOHN, J I

PA (MICH-N) MICHIGAN BIOTECHNOLOGY INST

CYC 95

PI WO 2002049459 A1 20020627 (200261)* EN 20p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2002029101 A 20020701 (200264)

ADT WO 2002049459 A1 WO 2001-US49055 20011217; AU 2002029101 A AU 2002-29101 20011217

FDT AU 2002029101 A Based on WO 200249459

PRAI US 2000-256996P 20001220

AB WO 200249459 A UPAB: 20020924

NOVELTY - A soy milk juice beverage (pH 3-7) comprises:

- (1) soy milk, a juice;
- (2) a gum-based stabilizer; and
- (3) a composition comprising:
 - (i) an amino acid;
 - (ii) an organic acid or inorganic acid; and
 - (iii) a metal ion.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for preparing a soy milk product comprising:

- (1) adding a juice;
- (2) a gum-based stabilizer; and
- (3) a composition comprising:
 - (i) an amino acid;
 - (ii) an organic acid or inorganic acid; and
 - (iii) a metal ion to soy milk to form a soy milk product.

USE - As a soy milk juice beverage (claimed).

ADVANTAGE - The beverage is stable for at least two weeks, preferably over 3 months at room temperature and/or refrigerator temperature 4 deg.

C. It is easier to process and provides superior uniformity of flavors, clean taste, appearance, and excellent nutritional attributes. It also exhibits separation, sediments or precipitate.

Dwg.0/0

TECH.

soy milk (5-80, preferably 35-45);

(2) juice (5-80, preferably 35-45);

(3) gum-based stabilizer (0.01-3); and

(4) a composition comprising an amino acid, an **organic acid** or inorganic acid and a metal ion (0.001-3).

The beverage further comprises (wt.%):

(1) a sweetener (25);

(2) a high intensity sweetener;

(3) an . . . locust bean gum, xanthan gum, gellan gum, guar gum, carrageenan, gum ghatti, karaya gum, tragacanth, gum arabic, and/or gelatin.

The **composition** comprising amino acid, (in)

organic acid and metal ion is a solution (pH 3.5-3.8)

comprising water, lysine HOH, **magnesium** oxide, malic acid, and citric acid.

The molar ratio of lysine HOH:**magnesium** oxide:acids is

1.5:1.0:2.9.

The sweetener is high fructose corn syrup, corn syrup, glucose, fructose, honey, lactose, and/or sugar.

The high intensity sweetener is acesulfame K, sucralose, aspartame and/or alitame.

The acidulent is citric acid, malic acid, succinic acid, **lactic acid**, tartaric acid, gluconic acid, ascorbic acid and/or other food grade **organic acids**.

The food additive is caffeine, vitamins (pyridoxine, riboflavin, vitamin D, niacin, phylloquinone), minerals (calcium, **magnesium**, iron, cobalt, **zinc**, manganese, chromium(III), copper, molybdenum, phosphorus, selenium), folic acid, ginkgo, garlic, isoflavones, soy proteins, L-carnitine, licorice, beta-carotene, peppermint, polyphenol, herbal extracts, . . . further added to the soy milk .

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Material: The acidulent is hydrochloric acid, **sulfuric acid**, phosphoric acid, and/or nitric acid.

L19 ANSWER 2 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-519747 [55] WPIDS

DNC C2002-147085

TI Hypoallergenic and non-irritant skin care formulation, useful in treatment of dry sensitive, eczematous or psoriatic skin, comprises water phase dispersed in oil phase and is free from, e.g. fragrances, preservatives or colorings.

DC A96 B05 D21 E19

IN FRANKE, P

PA (SCHD) SCHERING AG

CYC 99

PI WO 2002047642 A1 20020620 (200255)* EN 33p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

EP 1214930 A1 20020619 (200255) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

AU 2002034581 A 20020624 (200267)

ADT WO 2002047642 A1 WO 2001-EP14825 20011214; EP 1214930 A1 EP 2000-127555
20001215; AU 2002034581 A AU 2002-34581 20011214

FDT AU 2002034581 A Based on WO 200247642

PRAI US 2000-255379P 20001215; EP 2000-127555 20001215

AB WO 200247642 A UPAB: 20020829

NOVELTY - A hypoallergenic and non-irritant skin care formulation (I):

(A) free from fragrances, preservatives, colorings, plant extracts, polyethylene glycol, cetylstearyl alcohol, lanolin alcohol, lower alcohols and proteins; and

(B) comprises a water phase dispersed in an oil phase.

DETAILED DESCRIPTION - A hypoallergenic and non-irritant skin care formulation,

(A) free from fragrances, preservatives, colorings, plant extracts, polyethylene glycol, cetylstearyl alcohol, lanolin alcohol, lower alcohols and proteins; and

(B) comprises a water phase dispersed in an oil phase, comprising cetearyl octanoate, dicaprylyl ether, caprylic/capric triglyceride, polyglyceryl-3-diisostearate and polyglyceryl-2-dipolyhydroxystearate.

An INDEPENDENT CLAIM is included for a method of manufacturing a hypoallergenic and non-irritant skin care formulation.

ACTIVITY - Dermatological.

No biological data available.

MECHANISM OF ACTION - None given.

USE - (I) is used in the prophylaxis and treatment of dry, sensitive skin or in the therapy of eczematous skin and psoriatic skin (claimed).

ADVANTAGE - (I) is a hypoallergenic and non-irritant water-free skin formulation that is highly effective and with maximal skin tolerance and is useful for application in climate zone IV.

Despite being particularly useful for medical use in the treatment of severely affected dry skin, the skin care formulation has favorable cosmetic properties, such as excellent absorption, lack of stickiness, scent, and oily shine. The formulation furthermore exhibits excellent physical/microbial stability and fulfills the requirements of the cosmetic directives of the European Union and the United States. Although free of any preservatives, a shelf life of at least 2 years can be expected for the inventive formulation.

Dwg.0/0

TECH.

Components: (I) has a total number of ingredients of less than 15.

The water phase comprises the ingredients purified water,

magnesium sulfate, lactic acid, and

sodium lactate. The water phase may also comprise a glycerin, propylene glycol and urea. The oil phase may also. . . caprylic/capric

triglyceride (5-10), cera alba (1-2.5), polyglyceryl-3-diisostearate (4-5), polyglyceryl-2-dipolyhydroxystearate (1-2), and ethylhexylglycerin (0-0.8); and

(ii) as the water phase, glycerin (0-5), **magnesium sulfate** (0.5-1.5), **lactic acid** (0.05-1.5), sodium lactate (1-5) and purified water (add to 100%).

The water phase in semi-solid formulation may further include 5-10. . . dicaprylyl ether (1-3), caprylic/capric triglyceride (8-15), polyglyceryl-3-diisostearate (1.5-3), polyglyceryl-2-dipolyhydroxystearate (3-5), and ethylhexylglycerin (0-0.8); and

(ii) as the water phase, glycerin (0-5), **magnesium sulfate** (0.5-1.5), **lactic acid** (0.05-1.5),

sodium lactate (1-5), urea (0.5-10) and purified water (add to 100%).

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: Preparation of (I), comprises:

(i) preparing an oil phase;

(ii) preparing a water phase

(iii) adjusting the pH value of the resulting **solution** with **lactic acid** to 4.4 - 4.8;

(iv) preparing a water-in-oil emulsion by transferring the melted oil phase to the heated water phase; . . .

L19 ANSWER 3 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-471605 [50] WPIDS

CR 2002-329665 [36]

DNC C2002-134154

TI Production of an adsorbent particle for reducing or eliminating the amount of contaminant in a liquid or gas stream involves a particle with a dilute acid.

DC B04 J01 J04

IN KEPNER, B E; MINTZ, E A; MOSKOVITZ, M L

PA (APYR-N) APYRON TECHNOLOGIES INC

CYC 98

PI WO 2002040149 A2 20020523 (200250)* EN 125p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZM ZW

AU 2002036531 A 20020527 (200261)

ADT WO 2002040149 A2 WO 2001-US45004 20011115; AU 2002036531 A AU 2002-36531
20011115
FDT AU 2002036531 A Based on WO 200240149
PRAI US 2000-715542 20001117
AB WO 200240149 A UPAB: 20020924

NOVELTY - Production of an adsorbent particle involves contacting a particle with a dilute acid.

DETAILED DESCRIPTION - Production of an acid enhanced adsorbent particle (A) involves contacting a particle (a) produced by calcining at 300 - 700 deg. C (preferably 400 - 700 deg. C) with a dilute acid. (a) is non-amorphous, non-ceramic, crystalline, porous, calcinated aluminum oxide. The acid contacting gives a surface wash but avoids etching of the particle. The resultant acid treated aluminum oxide is not subsequently calcined.

INDEPENDENT CLAIMS are included for the following:

(1) Encapsulation of a contaminant within (A) involving heating the particle which has adsorbed a contaminant to close the pores of the particle and encapsulate the contaminant;

(2) Regenerating a system (preferably (A)) that has adsorbed a contaminant involving: thermally oxidizing the system and contacting the system with (ai) a reagent wash comprising aqueous ammonia, a phosphine and/or a detergent; (aii) an acid or base to cause a pH swing; or (aiii) a lewis acid or base;

(3) A composition (B) comprising (A);

(4) An adsorbent and/or catalyst and binder composition (c) comprising (A) and a second type of (c) comprising colloidal metal oxide or colloidal metalloid oxide;

(5) Production of an adsorbent and/or catalyst compound (E) involving (bi) mixing (A) with at least one other type of (c) and an acid; (bii) and heating the mixture to cross-link the binder to at least one type of particle or to itself;

(6) Modifying the physical property of a system comprising step (bii);

(7) Production of an adsorbent and/or catalyst and binder system (F) comprising (ci) mixing components comprising: (a1) a binder comprising a colloidal metal oxide or colloidal metalloid oxide (preferably colloidal alumina); (b1) an oxide adsorbent and/or catalyst particle; and (c1) an acid (q) (preferably aliphatic or aryl carboxylic acid); and (cii) removing a sufficient amount of water from the mixture by heating the system from 70 - 150 deg. C;

(8) (F) comprising a binder that has been cross-linked with at least one type of oxide adsorbent and/or catalyst particle. The particle is Al_2O_3 , TiO_2 , CuO , Cu_2O , V_2O_5 , SiO_2 , MnO_2 , Mn_2O_3 , Mn_3O_4 , ZnO , WO_2 , WO_3 , Re_2O_7 , As_2O_3 , As_2O_5 , MgO , ThO_2 , Ag_2O , AgO , CdO , SnO_2 , PbO , FeO , Fe_2O_3 , Fe_3O_4 , Ru_2O_3 , RuO , OsO_4 , Sb_2O_3 , CoO , CO_2O_3 , NiO , zeolite or activated carbon;

(9) Adsorbing an ion from a liquid or gas stream comprising contacting (F);

(10) (F) comprising: (a2) optionally substituted pendant ligand binder; (b2) optionally substituted pendant ligand oxide adsorbent and/or oxide catalyst particle; and (c2) a metal complex. At least one of (a2) - (c2) is a chiral optionally substituted pendant ligand. (a2) is cross-linked with (b2). (c2) is bound to (a2) and/or (b2);

(11) Separation of at least one component from a mixture comprising two or more component involving contacting the mixture with (F);

(12) Production of a pendant ligand substituted adsorbent and/or catalyst system involving: (di) mixing (a2), (b2) and (c2) and a base; and (dii) removing a sufficient amount of water from the mixture;

(13) Production of a composition containing (E) involving: mixing components comprising a pendant ligand substituted binder, an oxide adsorbent and/or catalyst particle (a), water, and removing a sufficient amount of water from the mixture for entrapping and holding the component; and

(14) A chromatography column comprising the system.

USE - For reducing or eliminating the amount of a contaminant in a liquid or gas stream (particularly phosphate, selenium, zinc, lead, anionic, oxoanionic, cationic, poly-oxoanionic or organic contaminants (e.g. trichloroethylene)) (all claimed). The particles are also used in chromatography support.

ADVANTAGE - The particle passes the EPA TCLP test for a particular contaminant (preferably lead). The particles remove contaminants from liquid or gas stream to a very low level. The particles bind tightly to the contaminants so that adsorbent particle/contaminant composition can be safely disposed in a landfill. The catalyst systems prepared using the particles show an improved ability to catalyze reaction of contaminants into non-contaminant by-products.

Dwg.0/4

TECH

UPTX: 20020807

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The dilute acid is acetic, nitric, **sulfuric**, hydrochloric, boric, formic and/or phosphoric acid (preferably acetic acid). The particle is aluminum oxide (p) in the gamma, chi-rho or. . . (p is not an adsorbent or catalyst support. (q) is acetic acid, benzoic acid, butyric acid, citric acid, fatty acid, **lactic acid**, maleic acid, malonic acid, oxalic acid salicylic acid, stearic acid, succinic acid, tartaric acid, propionic acid, valeric acid, hexanoic acid,. . . comprises a second type of adsorbent and/or catalyst particle of an oxide of aluminum, titanium, copper, vanadium, silicon, manganese, iron, **zinc**, zirconium, tungsten, rhenium, arsenic, **magnesium**, thorium, silver, cadmium, tin, lead, antimony, ruthenium, osmium, cobalt or nickel or zeolite, activated carbon (including coal and coconut carbon), peat, **zinc** or tin, aluminum oxide, silicates and/or diatomaceous earth. The particle is aluminum oxide, silicon dioxide and cultivated carbon. The pendant. . . - 70), zirconium oxide (1 - 97, preferably 1 - 20), silver nitrate (1 - 98, preferably 1 - 20), **magnesium** oxide (1 - 96, preferably 1 - 30) and/or manganese dioxide (1 - 96, preferably 1 - 20). Preferred Method:. . . in acid. The contacting is for at least 15 minutes. The dilute acid strength is equivalent to an aqueous acetic **acid solution** at less than or equal to 0.09 (preferably 0.02, especially 0.001)N. The heating is performed to increase the surface area. . .

L19 ANSWER 4 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-507907 [54] WPIDS

CR 2002-454412 [48]; 2002-507906 [54]; 2002-507908 [54]; 2002-566471 [60]

DNC C2002-144373

TI Coating metal strip e.g. for vehicle, aircraft or household appliance part includes application of lacquer-like coat with aqueous polymer dispersion containing fine inorganic particles, lubricant and corrosion inhibitor.

DC A18 A28 A82 E19 G02 M13

IN DOMES, H; JUNG, C; MAURUS, N; SCHIMAKURA, T

PA (CHEM-N) CHEMTEALL GMBH

CYC 94

PI WO 2002031064 A1 20020418 (200254)* DE 146p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001095609 A 20020422 (200254)

ADT WO 2002031064 A1 WO 2001-EP11737 20011010; AU 2001095609 A AU 2001-95609 20011010

FDT AU 2001095609 A Based on WO 200231064

PRAI DE 2001-10127721 20010607; DE 2000-10050537 20001011; DE 2001-10110830 20010306; DE 2001-10119606 20010421

AB WO 200231064 A UPAB: 20021007

NOVELTY - Coating metal strip comprises applying corrosion-inhibiting coat(s) and lacquer-like coat(s) (I), before/after dividing it into sections, and forming, joining or/and applying more (I) or/and lacquer coat(s). (I) film is obtained by applying aqueous dispersion containing organic film-former(s) containing polymer(s), inorganic particles and lubricant(s) or/and corrosion inhibitor(s), drying and optionally hardening.

DETAILED DESCRIPTION - Coating metal strip comprises applying corrosion-inhibiting coat(s) and lacquer-like coat(s) (I) containing polymer, before or after dividing it into sections, and forming, joining or/and applying more (I) or/and lacquer coat(s). (I) are provided by applying aqueous dispersion (II) containing organic film-forming agent(s) containing water-soluble or -dispersible polymer(s) with acid number 5-200, inorganic compound(s) in particles (III) of average diameter 0.005-0.3 micro m (scanning electron microscope) and lubricant(s) or/and corrosion inhibitor(s) to form a film containing (III), drying and optionally hardening, giving a 0.01-10 micro m thick film.

INDEPENDENT CLAIMS are also included for:

(a) process in which no corrosion-inhibiting coating is applied before (II);

(b) aqueous composition for pretreating metal surface before further coating or treatment, which comprises (II) and optionally organic solvent(s), silane(s) or/and siloxane(s), cross-linker(s), especially based on a basic compound, and/or chromium(VI) (Cr-VI) compound(s).

USE - The process is used for coating substrates e.g. wire, strip or part, in form of wire winding or braid, steel strip, sheet, cladding, screen, vehicle body (part), vehicle, trailer, caravan or aircraft part, cover, housing, lamp, light, ampoule part, piece or element of furniture, household appliance part, frame, profile, molding with complex geometry, conductive board, heater or fence element, push rod, part from or with tube(s) or/and profile(s), window, door or vehicle door frame or a small part, e.g. screw, nut, flange, spring or spectacle frame (all claimed). It is especially useful for coating aluminum (Al), iron (Fe), copper (Cu), magnesium (Mg), nickel (Ni), titanium (Ti), tin (Sn), zinc (Zn) or alloys containing these metals (all claimed). The products are used in vehicle construction, especially in mass production of cars, for making components, body parts or pre-assembled elements in the aircraft, aerospace or space travel industry; as sheet, cladding, body (part) or part of a vehicle, trailer, caravan or aircraft, as covers, profiles, moldings of complex geometry, push rods and parts of or with tube(s) or/and profile(s) (all claimed).

ADVANTAGE - Most existing processes for coating metals, especially metal strip, necessitate pretreatment based on chromium(VI) compounds and various additives before lacquering. The toxicological and ecological risks make this undesirable. Etching by inorganic acid used in some resin mixtures (dispersions) to improve contact greatly impairs protection against corrosion and darkens the surface of aluminum and its alloys. The present process can save at least one of the usual stages, especially a pretreatment stage and a lacquering stage (all claimed). It is suitable for fast coating, as used for strip, and for large scale operation. It can be carried out with little or no chromium(VI) compounds and little or no inorganic and organic acid.

Dwg.0/0

TECH.

fluoride(s), especially tetrafluoride or hexafluoride, phosphate, rare earth compounds, including those of lanthanum (La) and yttrium (Y), silicate, aluminum (Al), **magnesium** (Mg) and/or transition metal cations selected from Cr, Fe, hafnium (Hf), Co, manganese (Mn), molybdenum (Mo), nickel (Ni), titanium (Ti), . . . or/and Ni.

Preferred Particles: (III) are added as finely-divided powder, dispersion or suspension, e.g. of a carbonate, oxide, silicate or **sulfate**, especially as colloidal or/and amorphous particles. They are based on

compound(s) of Al, barium (Ba), cerium (Ce), calcium (Ca), La, silicon (Si), Ti, Y, **zinc (Zn)** or/and Zr, especially Al oxide (Al₂O₃), Ba **sulfate** (BaSO₄), Ce dioxide (CeO₂), Si dioxide (SiO₂), silicate, Ti oxide (TiO₂), Y oxide (Y₂O₃), **Zn** oxide (ZnO) or/and Zr oxide (ZrO₂).

Preferred Coating Compositions: The aqueous dispersion (II) contains 0.1-500 g/l of the particles (III). . . compounds. Any of coating liquids may contain (i) particles (III) and also rare earth oxides, other rare earth compounds and **Zn**, with a diameter of 0.003-1 (preferably 0.005-0.2 (µm (0.1-80, especially 1-50, more especially 2-30 g/l); (ii) corrosion inhibitors; (iii) compound(s). . . are applied by dry and/or rinse processes. The first preferably consists of Al, Fe, Co, Cu, Mg, Ni, Ti, Sn, **Zn** or alloys of these, especially **Zn** applied by electrolytic or hot galvanizing. (II) is applied by rollers, flooding, spreading, spraying or dipping, optionally followed by squeegee. . . the surface), it is so flexible that no cracks longer than 2 mm can be detected on wetting with copper **sulfate** by the color change caused by deposition of copper on the exposed metal surface.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY -. . . or/and thiol(s), e.g. Al, Mn, Ti or/and Zr compounds of olefinically unsaturated carboxylic acids and ammonium salts, such as chelated **lactic acid** titanate, triethanolamine titanate or zirconate, Zr 4-methyl-gamma-oxo-benzene-butanate, Al-Zr carboxylate, alkoxypropenolatotitanate or -zirconate, Ti or/and Zr acetate and Ti-Zr ammonium carbonate;. . . polyvinylpyrrolidone, polyaspartic acid or/and especially copolymers with a vinyl compound containing phosphorus (P). They preferably contain carboxyl groups.

Preferred Coating **Compositions**: The **acid** groups of the resins are stabilized with ammonia, amines, e.g. morpholine, dimethylethanolamine, diethylethanolamine or triethanolamine or/and alkali metal compounds, e.g.. . .

L19 ANSWER 5 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-362212 [39] WPIDS

CR 2002-565841 [60]

DNC C2002-102489

TI Acidic composition used to preserve and decontaminate food comprises monovalent or polyvalent cation, organic acid and anion of strong oxyacid, and is more biocidal than mixture of organic acid and its metal salt.

DC D13 E19

IN CARPENTER, R H; KEMP, M C; LALUM, R B; LEWIS, D E

PA (MION-N) MIONIX CORP

CYC 96

PI WO 2002019846 A2 20020314 (200239)* EN 55p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001093234 A 20020322 (200251)

ADT WO 2002019846 A2 WO 2001-US41954 20010830; AU 2001093234 A AU 2001-93234 20010830

FDT AU 2001093234 A Based on WO 200219846

PRAI US ~~2002-565131~~ 20000905

AB WO 200219846 A UPAB: 20020924

NOVELTY - A composition having acidic pH and acid normality comprises a cation, an organic acid and an anion of a strong oxyacid. The composition is less corrosive to ferrous metal than a solution of a mineral acid having the same pH as the acidic composition. The composition is more biocidal than a mixture of an organic acid and its metal salt, having the same acid normality as the acidic composition.

my case

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the preparation of the acidic composition which involves:

- (i) dissolving or suspending an organic acid in water,
- (ii) adding metal base to the solution or suspension,
- (iii) adding regenerating acid to the mixture to ensure complete regeneration of the organic acid from its metal salt and
- (iv) removing the undissolved solid.

Alternately, the acidic composition is prepared by:

- (i) dissolving or suspending a monovalent, divalent or trivalent metal salt of an organic acid to give a solution of suspension,
- (ii) adding regenerating acid to ensure complete regeneration of the organic acid from its metal salt followed by
- (iii) removing the undissolved solid.

USE - The composition is sued to decontaminate and preserve food and other biological materials. It is biocidal to Escherichia coli and other bacteria. It controls the growth of and kills microorganisms, and at the same time destroys the products generated by, or associated, with the microorganisms.

ADVANTAGE - The acidic composition is minimally corrosive and produces an environment where destructive microorganisms cannot live and propagate, thus prolonging the shelf-life of the product. The composition avoids the use of additional chemicals for food preservation, thereby improving the taste and avoiding residues. Organoleptic testing of a number of freshly preserved and previously preserved foodstuffs revealed the addition of the composition improves taste and eliminates preservative flavors.

Dwg.0/0

TECH

UPTX: 20020621

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: The **acidic composition** is prepared by mixing at least one regenerating acid having a first number of equivalents, at least one metal base having a second number of equivalents and at least one **organic acid**. The first number of equivalents of the regenerating acid is greater than the second number of equivalents of metal base. Alternately, the **acidic composition** is prepared by mixing at least one regenerating acid having a first number of equivalents, and at least one metal salt of an **organic acid** having a second number of equivalents which is less than the number of equivalents of regenerating acid.

TECHNOLOGY FOCUS - INORGANIC. . . regenerating acid is a strong oxyacid of sulfur, phosphorus, nitrogen, chromium, iodine, molybdenum, tungsten or selenium. Preferably, the acid is **sulfuric** acid, phosphoric acid or an **acidic solution** of sparingly soluble Group IIA complexes prepared by mixing mineral acid (preferably **sulfuric** acid) and a Group IIA hydroxide (preferably calcium hydroxide) and a Group IIA salt of dibasic acid (preferably calcium **sulfate**) or their mixtures.

Preferred Composition: The monovalent cation is an ion of a Group IA element. The polyvalent cation and metal. . . beryllium and ion of Group IIIA element other than boron. Preferably, the polyvalent cation and metal base comprises ions of **magnesium**, calcium, iron, copper, **zinc**, lead, bismuth or tin.

L19 ANSWER 6 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-241414 [29] WPIDS

DNC C2002-072574

TI Pharmaceutical carrier or excipient system useful for preparing a pharmaceutical formulation comprises a filler and disintegrant component, lubricant, optionally a wetting agent and optionally a glidant.

DC A96 B02

IN BENJAMIN, E J; DULIN, W A; SURYAWANSHI, J G

PA (AMHP) AMERICAN HOME PROD CORP

CYC 96

PI WO 2002003987 A2 20020117 (200229)* EN 60p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

US 2002031548 A1 20020314 (200229)

AU 2001071741 A 20020121 (200234)

ADT WO 2002003987 A2 WO 2001-US20993 20010629; US 2002031548 A1 Provisional US
2000-216192P 20000706, US 2001-896226 20010629; AU 2001071741 A AU
2001-71741 20010629

FDT AU 2001071741 A Based on WO 200203987

PRAI US 2000-216192P 20000706; US 2001-896226 20010629

AB WO 200203987 A UPAB: 20020508

NOVELTY - A pharmaceutical carrier or excipient system comprises (wt.%): a
filler and disintegrant component (a) (5-82), lubricant (b) (0.2-10),
optionally a wetting agent (c) (0.2-5) and optionally a glidant (d)
(0.1-10). The disintegrant forms (4-40) wt.% of (a).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the
pharmaceutical composition comprising an active pharmacological agent and
a carrier or excipient system.

USE - For preparation of film coated or encapsulated oral
pharmaceutical formulation (claimed).

ADVANTAGE - The pharmaceutical carrier enables to improve the
stability, solubility and absorption qualities of poorly soluble
pharmaceutical agents and ensures fast release.

Dwg.0/0

TECH.

effervescent system based on food acids. The food acid is selected from
citric acid, tartaric acid, malic acid, fumaric acid, **lactic**
acid, adipic acid, ascorbic acid, aspartic acid, erythorbic acid,
glutamic acid or succinic acid. (b) Is metallic stearate, fatty acid
ester. . . as sodium stearyl fumarate), fatty acids, fatty alcohol,
glyceryl behenate, mineral oil, paraffins, hydrogenated vegetable oils,
polyethylene glycols, metallic lauryl **sulfates** (preferably
magnesium stearate, calcium stearate, **zinc** stearate or
stearic acid) and sodium chloride. (c) Is sodium lauryl **sulfate**,
polyoxyethylene sorbitan fatty acid ester, polyoxyethylene alkyl ethers,
sorbitan fatty acid esters, polyethylene glycols, polyoxyethylene castor
oil derivatives, docustate sodium, quaternary ammonium compound, sugar
esters of fatty acid and glycerides of fatty **acids**.
Preferred **Composition**: The composition is film coated or
encapsulated comprising about (8, preferably 0.3-8) wt.% of the final
composition. The pharmaceutical composition. . . wt.%;
(2) (Ia), (Ib) or a salt (2-8), lactose (32-38), microcrystalline
cellulose (32-38), pregelatinized starch (12-16), ascorbic acid (1-2),
sodium lauryl **sulfate** (1-2), sodium starch glycolate (4-8),
silicon dioxide (0.1 - 0.2) and **magnesium** stearate (0.3-0.7);
(3) (Ia), (Ib) or a salt (0.1-25), lactose (20-80), pregelatinized starch
(4-40), ascorbic acid (0.5-15), sodium lauryl **sulfate** (0.2-5)
and **magnesium** stearate (0.2-10); or
(4) (Ia), (Ib) or a salt (5-18), lactose (47-77), pregelatinized starch
(25-35), ascorbic acid (1-3), sodium lauryl **sulfate** (1-2),
silicon dioxide (0.1-0.5) and **magnesium** stearate (0.2-0.5).

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The filler
component is selected from at least one of calcium. . . exchange resins
or effervescent systems based alkaline carbonate component. The alkaline
carbonate component is selected from sodium bicarbonate, calcium
carbonate, **magnesium** carbonate, potassium carbonate or ammonium
carbonate.

L19 ANSWER 7 OF 38 WPIDS (C) 2002 THOMSON DERWENT
 AN 2002-565841 [60] WPIDS
 CR 2002-362212 [39]
 DNC C2002-160280
 TI Prepared nutriment comprises highly acidic metalated organic acid absorbed or adsorbed on nutriment material, e.g. food or drink.
 DC D13
 IN CARPENTER, R H; KEMP, M C; LALUM, R B; LEWIS, D E
 PA (CARP-I) CARPENTER R H; (KEMP-I) KEMP M C; (LALU-I) LALUM R B; (LEWI-I) LEWIS D E; (MION-N) MIONIX CORP
 CYC 100
 PI US 2002068114 A1 20020606 (200260)* 13p
 WO 2002056712 A2 20020725 (200260) EN
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TR TZ UG ZM ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
 DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
 KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
 RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
 ADT US 2002068114 A1 CIP of US 2000-655131 20000905, US 2001-766546 20010119;
 WO 2002056712 A2 WO 2002-US782 20020110
 PRAI US 2001-766546 20010119; US 2000-655131 20000905
 AB US2002068114 A UPAB: 20020919
 NOVELTY - A prepared nutriment material (I) comprising a solution or suspension of highly acidic metalated organic acid (HAMO) absorbed or adsorbed on nutriment material, is new.

USE - (I) is useful as a prepared nutriment (claimed).

ADVANTAGE - The incorporation of HAMO reduces biocidal contaminants and preserves the nutriment.

Dwg.0/0

TECH.

prepared by mixing regenerating acid(s) with a first number of equivalents, metal base(s) with a second number of equivalents and **organic acid(s)**. The first number of equivalents is greater than the second number of equivalents.
 Preferred Properties: The HAMO has an acidic pH value and an acid normality value. It is less corrosive to ferrous metal compared to a **solution** of mineral **acid** with the same acidic pH value as that of the HAMO. It is more biocidal than a mixture of **organic acid** and metal salt of **organic acid** with the same acid normality value as that of the HAMO.
 Preferred Composition: The resultant HAMO comprises monovalent or polyvalent cation, **organic acid** and anion of strong oxyacid. The **organic acid** comprises acidic vitamin (e.g. vitamin C); carboxylic acid (e.g. mono-, di-, or tri-carboxylic acid); acetic acid; **lactic acid**; formic acid; propionic acid; or amino acid (e.g. glycine, valine, leucine, phenylalanine, lysine, serine, asparagine, glutamic acid, alanine, arginine, aspartic. . . Preferred Components: The regenerating acid comprises strong oxyacid of sulfur, phosphorus, nitrogen, chromium, iodine, molybdenum, tungsten or selenium; or preferably **sulfuric acid**, phosphoric acid, or an **acidic solution** of sparingly-soluble Group IIA complexes prepared by mixing mineral acid and Group IIA hydroxide and/or Group IIA salt of dibasic acid. The Group IIA hydroxide is calcium hydroxide, the mineral acid is **sulfuric acid**, and the Group IIA dibasic acid salt is calcium **sulfate**. The metal base is hydroxide, carbonate, bicarbonate, oxide of metal, base of Group IA element, base of Group IIA element. . . but not beryllium, base of Group IIIA element but not boron, metal base of first transition series, or base of **magnesium**, calcium, iron (II), copper, **zinc**, lead, bismuth or tin. The monovalent cation comprises an ion of Group IA element, ion of Group IIA element but. . . Group IIIA

element but not boron, and/or metal ion of first transition series. The polyvalent cation comprises an ion of **magnesium**, calcium iron (II), copper, **zinc**, lead, bismuth, or tin.

L19 ANSWER 8 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-607113 [65] WPIDS

DNC C2002-171611

TI New method for purifying a fluoroaryl metal compound.

DC A60 B03 C02 E12

IN IIDA, T; IKENO, I; MITSUI, H; MORIGUCHI, T

PA (JAPC) NIPPON SHOKUBAI CO LTD; (IIDA-I) IIDA T; (IKEN-I) IKENO I; (MITS-I) MITSUI H; (MORI-I) MORIGUCHI T

CYC 28

PI US 2002065425 A1 20020530 (200265)* 10p

CN 1356330 A 20020703 (200265)

EP 1211256 A2 20020605 (200265) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

ADT US 2002065425 A1 US 2001-993891 20011127; CN 1356330 A CN 2001-140197
20011129; EP 1211256 A2 EP 2001-128270 20011128

PRAI JP 2000-367745 20001129

AB US2002065425 A UPAB: 20021010

NOVELTY - Method for purifying a fluoroaryl metal compound (I) comprises precipitating and removing magnesium halide from a solution containing the fluoroaryl metal compound, the magnesium halide and an ether solvent.

DETAILED DESCRIPTION - Method for purifying a fluoroaryl metal compound of formula (I) comprises precipitating and removing magnesium halide of formula MgX_aX_b from a solution containing the fluoroaryl metal compound, the magnesium halide and an ether solvent.

R1-R5 = H, F, hydrocarbon or alkoxy;

M = group IV metal atom;

R6 = hydrocarbon;

n = 1-3;

Xa = F, Cl, Br or I; and

Xb = Cl, Br or I;

provided that at least 1 R1-R5 is F.

USE - The method is useful for purifying compounds (I), which are useful as pharmaceutical and agricultural chemical intermediates, polymerization catalysts, polymerization co-catalysts, catalysts for photopolymerization of silicone and intermediates of these catalysts.
Dwg.0/0

TECH.

by distilling out the ether solvent from the solution is mixed with a solvent A which does not dissolve the **magnesium** halide or the solution is mixed with a solvent B which has a boiling point higher than that of the ether solvent and does not dissolve the **magnesium** halide then the ether solvent is distilled out from a mixed solution and a concentrated solution is cooled or solvent. . . the solution being added to solvent B and a concentrated solution is cooled or the solution is treated with an **acid**. When the **solution** is treated with an **acid**, the **solution** and an aqueous **solution** containing the **acid** are mixed and stirred and the mixed solution is allowed to stand then separated into an organic layer containing the fluoroaryl metal compound and an aqueous layer containing the **magnesium** halide and the acid and the aqueous layer is removed. The molar ratio of the fluoroaryl metal compound and the **magnesium** halide in the solution is 1000:1-1:1000.
Preferred Components: The acid is at least one inorganic and/or **organic acid**, selected from hydrochloric acid, **sulfuric** acid, nitric acid, phosphoric acid, carbonic acid, formic acid, acetic acid, propionic acid, oxalic acid, malonic acid and succinic acid. The metal atom in the fluoroaryl metal compound is tin. The **magnesium** halide is at least one of **magnesium** fluoride

chloride, **magnesium** fluoride bromide, **magnesium** fluoride iodide, **magnesium** diiodide. The ether solvent is at least one of diethyl ether, dipropyl ether, diisopropyl ether, dibutyl ether, di-t-butyl ether, t-butylmethyl. . .

L19 ANSWER 9 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-360919 [39] WPIDS

DNN N2002-281998 DNC C2002-102140

TI Etching solution for chemical mechanical planarization or spin etch planarization of copper/tantalum/tantalum nitride surface, includes oxidizing reactant, co-reactant, and other additives.

DC A85 E19 L03 U11 X12

IN LEVERT, J A; MUKHERJEE, S P; TOWERÝ, D L; ZHANG, F; LEVERT, J; MUKHERJEE, S; TOWERY, D

PA (LEVE-I) LEVERT J A; (MUKH-I) MUKHERJEE S P; (TOWE-I) TOWERY D L; (ZHAN-I) ZHANG F; (HONE) HONEYWELL INT INC

CYC 92

PI US 2002020833 A1 20020221 (200239)* 10p

WO 2002059393 A1 20020801 (200260) EN

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS

LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL

TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

ADT US 2002020833 A1 Cont of US 1999-357264 19990719, US 2000-745266 20001220;
WO 2002059393 A1 WO 2001-US48867 20011218

PRAI US 1999-357264 19990719; US 2000-745266 20001220

AB US2002020833 A UPAB: 20020621

NOVELTY - An etching solution comprises an oxidizing reactant from ammonium persulfate, hydrogen peroxide, and nitric acid; a co-reactant from phosphoric acid, sulfuric acid, nitric acid, oxalic acid, acetic acid, and organic acids; and other additives.

DETAILED DESCRIPTION - An etching solution comprises an oxidizing reactant from ammonium persulfate, hydrogen peroxide, and nitric acid; a co-reactant from phosphoric acid, sulfuric acid, nitric acid, oxalic acid, acetic acid, and organic acids; and other additives from hydrochloric acid, aliphatic alcohols, butylated hydroxytoluene, Agidol-2, 2,6-di-tert-butyl-4((dimethylamino)methyl) phenol, 2,6-di-tert-4N,N-dimethylaminomethylphenol, borax, poly(oxyethylene)lauryl ether, malic acid, HOOC(X₂)nCOOH, 3% tartaric acid, 1% ethylene glycol, 1,2,4-triazole, 1,2,3-triazole, tetrazole, nonionic surfactant, ethanol, trifluoroethanol, silicon hexafluoride, organic salt surfactant, polyvinyl alcohol, diphenylsulfamic acid, sodium oxalate, benzotriazole, sodium lignosulfonate, glycol, gelatin carboxymethylcellulose, amines, heavy metal salts, salts of copper and tantalum, potassium chloride, copper chloride, tin chloride, propylene glycol, 2-ethyl-hexylamine, copper carbonate, low molecular weight alcohols, glycols, phenols, aliphatic alcohols, polyvinylalcohols, anionic surfactants, cationic surfactants, fluorocarbon-based surfactants, non-ionic surfactants, polyvinyl alcohol solution stabilizers and species inhibiting spontaneous decomposition of oxidizing agents, and wetting agents. The non-ionic surfactants have the properties of adhering to certain materials to modify the chemical reactivity.

X = OH, amine, or H;

n = 1-4.

USE - For chemical mechanical planarization or spin etch planarization of copper/tantalum/tantalum nitride surface in the fabrication of integrated circuits.

ADVANTAGE - The invention achieves 1:1 removal rate selectivity for copper and tantalum/tantalum nitride, and provides adequate material removal rates without excessive downforce being necessary on low dielectric components.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of chemical mechanical planarization.

Dwg.1/1

TECH.

ferric chloride. The species can be sodium chlorate, iron nitrate, ammonium persulfate, CuNH_4Cl_3 , sodium persulfate, potassium metabisulfite, ammonium fluoride, copper **sulfate**, ammonium hydroxide, potassium hydroxide, hydrogen peroxide, copper nitrate, and sodium ethylenediamine tetraacetic acid (EDTA) salt of wetting agent. It can be hydrogen fluoride, nitric acid, hydrogen peroxide, **sulfuric acid**, and **lactic acid**. It can also be sodium hydroxide, potassium hydroxide, ammonium hydroxide, and hydrogen peroxide. The solution also includes an abrasive particles. . . fluorides, carbonates, borides, nitrides, hydroxides of aluminum, silver, gold, calcium, chromium, cerium, copper, iron, gadolinium, germanium, lanthanum, indium, hafnium, manganese, **magnesium**, nickel, neodymium, lead, platinum, phosphorus, antimony, scandium, tin, terbium, titanium, tantalum, thorium, yttrium, tungsten, **zinc**, and zirconium. It also includes citric acid, erythorbic acid, and triethanolamine, in aqueous **solution**; **sulfuric acid**, hydrogen peroxide, molybdenum salt, phenolsulfonic **acid** in aqueous **solution**; and mineral **acid**, and molybdenum salt. The abrasive particles are coated with cesium oxide and are produced by a sol method. The oxidizing reactants include approximately 50-approximately 70 parts/vol. concentrated phosphoric acid, approximately 24-approximately 40 parts/vol. concentrated aqueous acetic acid, and approximately 3-approximately 10 parts/vol. concentrated aqueous nitric **acid**. The **solution** also includes approximately 1-approximately 15 parts/vol. concentrated hydrogen fluoride. Preferred Property: The abrasive particles have a size of approximately 4-approximately 5, preferably less than. . .

L19 ANSWER 10 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-149653 [20] WPIDS

DNN N2002-113472 DNC C2002-046564

TI Manufacture of substrate for the production of lithographic printing plates by graining aluminum substrate surface(s), applying anodic layer to the grained surface, and treating the surface.

DC G05 P75

IN CHAU, T V; MAYERS, F R

PA (GEVA) AGFA-GEVAERT; (GEVA) AGFA-GEVAERT NV; (CHAU-I) CHAU T V; (MAYE-I) MAYERS F R

CYC 28

PI EP 1176031 A1 20020130 (200220)* EN 10p

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

US 2002043168 A1 20020418 (200228)

JP 2002121684 A 20020426 (200231) 8p

ADT EP 1176031 A1 EP 2001-213 20010614; US 2002043168 A1 US 2001-897241
20010702; JP 2002121684 A JP 2001-215043 20010716

PRAI EP 2000-202518 20000717

AB EP 1176031 A UPAB: 20020402

NOVELTY - Substrate for lithographic printing plates is made by graining surface(s) of an aluminum substrate; applying anodic layer to the grained surface; treating the surface with an aqueous solution of at least one salt of a metal from group IB, IIB, IVA, IVB, VB, VIA, VIB, VIIB, or VIII; and treating the treated surface with an aqueous solution orthophosphate salt(s) of an alkali metal.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a lithographic printing plate precursor manufactured by applying a light-sensitive coating to the inventive substrate.

USE - For the manufacture of a substrate for use in the production of lithographic printing plates.

ADVANTAGE - Lithographic printing plates produced from the substrate

produced by the inventive method exhibits excellent performance in terms of ease of deletion, as well as good corrosion resistance, solvent resistance, clean-up and roll-up on press. No background staining is observed, and the plates exhibit excellent ink-water balance and damping latitude performance, and good run length.
Dwg.0/0

TECH.

IVB, VB, VIA, VIB, VIIB, or VIII comprises a salt of titanium, zirconium, hafnium, molybdenum, tungsten, vanadium, manganese, nickel, copper, **zinc**, tin, niobium, tantalum, cerium, selenium, silicon, cobalt, or iron. It includes the metal as the cation. It comprises a **sulfate**, phosphate, nitrate, acetate, fluoride, or chloride salt of titanium, zirconium, or hafnium. It includes the metal as part of a .
- METALLURGY - Preferred Material: The metallic substrate comprises aluminum or its alloy containing small amounts of manganese, nickel, cobalt, **zinc**, iron, copper, **magnesium**, titanium, vanadium, silicon, and/or zirconium. Preferred Method: The graining treatment comprises a mechanical or electrochemical graining treatment. The electrochemical graining treatment comprises passing a substrate through a solution of a mineral and/or **organic acid** while applying an electric current to the **acid solution**. The anodic layer is applied to the grained surface of the substrate by passing the substrate through an aqueous mineral and/or **organic acid** while applying an electric current to the **acid solution**.

L19 ANSWER 11 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-464503 [50] WPIDS

DNC C2002-132295

TI Anticoagulant composition containing anticoagulant in acidic solution or suspension useful e.g. for treatment of thrombosis and for promotion of wound healing.

DC B05

IN NATTERER, S

PA (NATT-I) NATTERER S

CYC 1

PI DE 10059053 A1 20020529 (200250)* 4p

ADT DE 10059053 A1 DE 2000-10059053 20001128

PRAI DE 2000-10059053 20001128

AB DE 10059053 A UPAB: 20020807

NOVELTY - An anticoagulant composition contains one or more anticoagulants comprising heparins, heparinoids, coumarins, coumarin derivatives, hirudins, tocopherols and polyunsaturated fatty acids in an acidic solution or emulsion of pH 2.25-5.5.

ACTIVITY - Anticoagulant; Vulnerary.

No relevant example showing activity is given in the specification.

MECHANISM OF ACTION - Thrombin inhibitor; fibrinogen inhibitor.

USE - The composition is useful especially for the treatment of obtuse traumas and for the prevention of systemic and local thromboses, e.g. phlebitis. It is also useful for wound healing, especially of damaged skin which usually heals with heavy scar formation, e.g. following burning or scalding, and for the treatment of skin damage accompanied by muscular damage, e.g. knee contusion with simultaneous skin abrasion.

Dwg.0/0

TECH.

a heparin or heparinoid. When the anticoagulant is a polyunsaturated fatty acid, this is linoleic acid, linolenic acid or arachidonic **acid**.

The **composition** may also contain:

(a) an **organic acid**, e.g. ascorbic, malic or **lactic acid**, and/or inorganic acid, e.g. hydrochloric acid, **sulfuric acid** or H₃PO₄);

(b) one or more Mg salts, especially in an amount of 2-18 mg/100 ml solution;

- (c) one or more **Zn** salts, especially in an amount of 0.5-12 mg/100 ml solution; and
(d) one or more trace metals (optionally as salts) from. . .

L19 ANSWER 12 OF 38 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-164403 [21] WPIDS
DNC C2002-050757
TI Colloidal silicate dispersion used as binder for mineral wool products, cementitious or concrete products, contains specific amount of silica and alumina, in aqueous medium.
DC E37 G02 G03 L02
IN LE BELL, J; PERANDER, M
PA (PARY) PAROC GROUP OY AB
CYC 96
PI WO 2001097963 A2 20011227 (200221)* EN 17p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
FI 2000001458 A 20011221 (200221)
AU 2001069162 A 20020102 (200230)
ADT WO 2001097963 A2 WO 2001-FI578 20010619; FI 2000001458 A FI 2000-1458
20000620; AU 2001069162 A AU 2001-69162 20010619
FDT AU 2001069162 A Based on WO 200197963
PRAI FI 2000-1458 20000620
AB WO 200197963 A UPAB: 20020403
NOVELTY - A colloidal silicate dispersion contains silica and alumina, in a molar ratio of 2-12, in an aqueous medium.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) gel which is formed through gel formation, including coagulation of the colloidal silicate dispersion;
(2) preparation of colloidal silicate dispersion involving:
(i) dissolving a particulate mineral material containing silica and alumina in molar ratio of 2-12, in an aqueous medium, to form a solution containing nucleated re-precipitated particles from the material,
(ii) stabilizing the solution to form a dispersion, and
(iii) optionally adjusting the dry matter content of the formed dispersion; and
(3) use of the dispersion as binding agent in binding composition, coating composition or adhesive agent.
USE - As a binder in a binding composition (for mineral wool production or for raw material briquette for mineral wool production), coating composition (as coating layer material or component of coating layer material for mineral wool products), adhesive composition (in mineral wool laminates and in construction panels comprising a mineral wool layer laminated to a metal sheet for binding such a layer to the metal sheet) (claimed), metal ore briquette, binders in foundry molds and cores, additives to cement or concrete products, fire resistant coatings and for wood, concrete, bricks, glass, metal, plywood and plasterboard manufacture.
ADVANTAGE - The colloidal silicate dispersion as feasible silicate binder material, has excellent binding, strengthening and fire resistance properties and reduced crystallinity, and is manufactured from inexpensive and easily available raw materials or byproducts in simple manner. The dispersion does not cause environmental pollution, but contains components that are inherently present in nature. The dispersion has a low alkali content particularly sodium and potassium oxides. Since the dispersion comprises alkaline earth metal oxides, such as calcium and/or magnesium and/or iron oxides with a low solubility compared to alkali metals, the dispersion has improved water resistance.
DESCRIPTION OF DRAWING(S) - The figure shows the relationship of

particle size (in nm) to time (in hrs) of nucleated re-precipitated silica and alumina particles in 1M formic acid of colloidal silicate dispersion.
Dwg.1/3

TECH.

alkali oxide(s), and molar ratio of silica to alkali oxides, is 10-350, preferably 15-150.

The dispersion also comprises calcium oxide and/or **magnesium** oxide and/or iron oxide, and molar ratio of silica to total of calcium oxide, **magnesium** oxide and iron oxide, is 0.5-2, preferably 0.6-1.5.

The dispersion has a particle size of 1-1000 nm, preferably 10-100 nm, and. . . of sodium or potassium oxide, 12-35 wt.%, preferably 30-40 wt.% of calcium oxide, 6-20 wt.% of wt.%, preferably 5-11 wt.% **magnesium** oxide, 2-10 wt.%, preferably 0.1-1 wt.% of iron oxide.

The particulate mineral material is a mineral fiber product, waste product from. . . the dispersion.

Preferred Aqueous Solution: The aqueous solution is a solution of an inorganic acid chosen from hydrochloric acid, nitric acid, **sulfuric** acid or hydrophosphoric acid or **organic acid** chosen from formic acid, acetic acid, or propionic acid.

The aqueous **solution** is an alkaline solution comprising an alkali or ammonium or an alkaline earth metal hydroxide, carbonate or hydrocarbonate chosen from sodium, potassium, lithium or ammonium or calcium or **magnesium** hydroxide solution.

L19 ANSWER 13 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-114082 [15] WPIDS

DNC C2002-034902

TI Bar composition for cleansing skin, includes polyalkylene glycol of specified molecular weight, free fatty acid, and salt of protic acid.

DC A96 D21

IN ARONSON, M P; AZRI-MEEHAN, S; CHAMBERS, J G; GORMAN, C; LEOPOLDINO, S R; NUNN, C C

PA (UNIL) UNILEVER HOME & PERSONAL CARE USA DIV CO; (UNIL) HINDUSTAN LEVER LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PLC

CYC 95

PI WO 2001080821 A2 20011101 (200215)* EN 66p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

US 6342470 B1 20020129 (200216)

AU 2001073934 A 20011107 (200219)

ADT WO 2001080821 A2 WO 2001-EP4079 20010410; US 6342470 B1 US 2000-558810
20000426; AU 2001073934 A AU 2001-73934 20010410

FDT AU 2001073934 A Based on WO 200180821

PRAI US 2000-558810 20000426

AB WO 200180821 A UPAB: 20020306

NOVELTY - A bar composition includes polyalkylene glycol having molecular weight of 400-25000 Dalton, free fatty acid, and salt of protic acid. The weight ratio of free fatty acid to sum of polyalkylene glycol and organic protic acid salt is 1:2 to 2:1. The polyalkylene glycol improves skin condition by reducing the barrier damage, increasing skin hydration, and/or reducing visual dryness.

DETAILED DESCRIPTION - A bar composition comprises (wt.%) fatty acid soap (25-85), polyalkylene glycol having molecular weight of 400-25000 Dalton, 8-22C free fatty acid (1-35), and salt of protic acid having pKa of less than 6 (0.1-5). The molar equivalent weight ratio of free fatty acid to protic acid salt is 0.5:1 to 3:1. The weight ratio of free fatty acid to sum of polyalkylene glycol and organic protic acid salt is 1:2 to

2:1. The polyalkylene glycol improves skin condition in controlled application wash tests by reducing the barrier damage (as measured by transepidermal water loss), increasing skin hydration (as measured by skin conductivity/capacitance), and/or by reducing visual dryness.

INDEPENDENT CLAIMS are also included for (A) method for cleansing the skin comprising washing the skin with the inventive bar and water; and (B) a process for making the bar composition comprising mixing the ingredients at 25-40 deg. C.

USE - For cleansing skin of human.

ADVANTAGE - The inventive bar composition provides effective cleansing and refreshing experience while producing lower levels of visual dryness, retaining moisture in the skin and maintaining a stronger protective barrier than ordinary soap. It has excellent in-use sensory properties as well as good bar properties, e.g., adequate hardness and low grittiness.

Dwg.0/4

TECH.

fatty acid soap, 1.5-25 (preferably 2-8) wt.% polyalkylene glycol, 0.1-14 (preferably 3-8) wt.% free fatty acid, and 0.5-3 wt.% protic acid salt. The composition may further comprise 0.5-10 wt.% auxiliary surfactant, 0.1-10 wt.% moisturizing agent, 0.1-10 wt.% oily-skin treating agent, 0.1-10 wt.% skin renewal. . . in ratio 95:5 to 50:50. The free fatty acid is 8-2C (un)saturated fatty acid. The protic acid salt can be magnesium, potassium, or sodium salt of adipic, citric, glycolic, formic, lactic, malic, maleic, succinic, tartaric, and/or salicylic acid. The protic acid. . . oil, borage seed oil, primrose oil, essential fatty acids, petrolatum, mineral oil, vitamin A, C and E, glycerol, salts of lactic acid, or pyrrolidone carboxylic acid, amino acids and/or their proteins. The oily-skin treating agent can be vitamins, plant extracts, or sea/algae. . . having molecular weight of 400-10000.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The protic acid salt can also be magnesium, potassium, or sodium salt of hydrochloric, sulfuric, and/or phosphoric acid. The oily-skin treating agent can be minerals, clays, inorganic salts, silica, talc, and/or alpha and beta-hydroxyacid salts.. . .

L19 ANSWER 14 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-557872 [62] WPIDS

DNC C2001-165974

TI Leaching of ore containing nickel and magnesium by mixing microorganism, nutrient, and the ore to dissolve the nickel and form salt solution containing nickel salt and magnesium salt, and separating the nickel from magnesium salt.

DC D16 M25

IN DUYVESTEYN, W P C; LIU, H

PA (BRHI) BHP MINERALS INT INC

CYC 94

PI WO 2001066808 A2 20010913 (200162)* EN 19p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001041999 A 20010917 (200204)

US 6395061 B1 20020528 (200243)

ADT WO 2001066808 A2 WO 2001-US7114 20010306; AU 2001041999 A AU 2001-41999
20010306; US 6395061 B1 Provisional US 2000-187439P 20000307, US
2000-748917 20001227

FDT AU 2001041999 A Based on WO 200166808

PRAI US 2000-748917 20001227; US 2000-187439P 20000307

AB WO 200166808 A UPAB: 20011026

NOVELTY - Leaching an ore that contains nickel and magnesium, comprising mixing a microorganism that is capable of producing an organic acid, a nutrient, and an ore that contains nickel and magnesium for a period of time to dissolve the nickel and form a salt solution containing a nickel salt and magnesium salt, and separating the nickel from the magnesium salt, is new.

USE - For leaching an ore that contains nickel and magnesium.

ADVANTAGE - The inventive method has a potential to supplant environmentally disruptive ones currently used in the minerals industry to produce nickel, a strategically important and highly valued commodity, and synergistically produce calcium and magnesium citrates that can be purified to United States Pharmacopoeia (USP) grade for use in the food industry. Organic acids are readily biodegradable and, thus, their use in the processing and recovery of metals, the environmental issues resulting in the contamination of heaps, tailings, and soils will be significantly reduced as compared to mineral acid leaching, resulting in a lowering of cost associated with decommissioning of mining sites and remediation of contaminated sites.

Dwg.0/6

TECH

UPTX: 20011026

TECHNOLOGY FOCUS - CHEMICAL ENGINEERING - Preferred Method: The **magnesium** citrate is recovered and converted to citric acid and **magnesium** hydroxide. A pure nickel from the nickel salt is recovered. A portion of the citric acid is recycled and mixed with the microorganism, nutrient, and ore. The recycled citrate is re-acidified with an inorganic acid such as **sulfuric** and hydrochloric acid and mixed with the microorganism, nutrient, and ore. The mixing is conducted at a pH of 1-7.. . . ore or substrate material is formed into two separate reactors or heaps where one reactor is used to produce an **organic acid solution** using substrate material and where the **organic acid solution** from the first reactor is contacted with ore in the second reactor.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Component: The microorganism. . . . Wentii, Yarrowia lipolytica, Candida lipolytica, and/or Candida guilliermondii, preferably Aspergillus niger.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: The **organic acid** is oxalic acid, and/or humic acid, preferably citric acid. The nutrient is molasses, sugar, beet sugar, cane sugar, dextrose hydrolyzed. . . . cornstarch, and/or sucrose containing materials.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The nickel salt is nickel citrate. The **magnesium** salt is **magnesium** citrate.

L19 ANSWER 15 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-582265 [65] WPIDS

DNC C2001-172687

TI Recovery of organic acid, e.g. 2-keto-L-gulononic acid, from fermentation broth, comprises adjusting proton concentration in the fermentation broth to desired level.

DC D16 E19

IN ARUMUGAM, B K; COLLINS, N A; HUBBS, J C; O'MEADHRA, R S; PERRI, S T; SHELTON, M R; SINK, C W; TINDALL, G W

PA (ARUM-I) ARUMUGAM B K; (COLL-I) COLLINS N A; (HUBB-I) HUBBS J C; (OMEA-I) O'MEADHRA R S; (PERR-I) PERRI S T; (SHEL-I) SHELTON M R; (SINK-I) SINK C W; (TIND-I) TINDALL G W; (EACH) EASTMAN CHEM CO

CYC 23

PI WO 2001066508 A2 20010913 (200165)* EN 69p

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

W: BR CN JP

US 2002026077 A1 20020228 (200220)

ADT WO 2001066508 A2 WO 2001-US7140 20010306; US 2002026077 A1 Div ex US
2000-519936 20000307, US 2001-921946 20010803

PRAI US 2000-519936 20000307; US 2001-921946 20010803

AB WO 200166508 A UPAB: 20011108

NOVELTY - Organic acid is recovered from a solution comprising adjusting a proton concentration in the solution to desired level, basing on available protons needed to associate with acid anions of the organic acids and/or acid anions that are weaker than the organic acids. At least a portion of the desired organic acid is recovered from the aqueous phase.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a composition comprising an aqueous solution containing 2-keto-L-gulonic acid and predetermined proton concentration that is equal to, greater than, or less than the amount of protons needed to associate with 2-keto-L-gulonic acid and acid anions that are weaker than the 2-keto-L-gulonic acid.

USE - The method is for recovering organic acid e.g., ascorbic, succinic, tartaric, glyconic, gluconic, gulonic, citric, lactic, malic, maleic, acetic, formic, pyruvic, propionic, butyric, itaconic acids, and/or carboxylic acid, or preferably 2-keto-L-gulonic acid (KLG) or 2-keto-D-gluconic acid, from aqueous solution e.g., fermentation broth having unreacted sugar. The 2-keto-L-gulonic acid or 2-keto-D-gluconic acid can be converted to ascorbic acid and/or erythorbic acid. (All claimed)

ADVANTAGE - The inventive method provides a proper proton concentration in the aqueous stream without the need of contacting with an anion exchange resin. It allows a maximum recovery of the desired organic acid in cost-effective manner.

Dwg.0/3

TECH.

may be 1-10% greater than or less than the amount of protons needed to associate with the anion of the **organic acid**. The proton concentration is adjusted by introducing a strong **acid** into the **solution**, removing at least a portion of produced precipitated salts, contacting the solution with cation exchange resin in its hydrogen or acid form, and introducing base(s) to neutralize any formed strong acid. A portion of recovered **organic acid** is recycled to the adjusting step. The recovering step involves crystallizing the desired **organic acids** from the **solution**, and filtration, decantation, centrifugation, extraction, and/or spray drying. The determination of desired proton concentration includes titration in aprotic solvent e.g., . . . and adding salt(s).

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The solution may further include acid anions of phosphates, **sulfates**, nitrates, or chlorides. The strong acid can be **sulfuric**, hydrochloric, nitric, or phosphoric acid. The base can be sodium hydroxide or potassium hydroxide. The added salt is barium chloride, barium perchlorate, barium bromide, **magnesium** perchlorate and/or strontium salt. The desired **organic acid** has a counter ion of sodium, potassium, or calcium.

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The cation exchange resin. . .

L19 ANSWER 16 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-010483 [01] WPIDS

DNC C2002-002478

TI Stabilized, concentrated, acidic antimicrobial composition which forms clear aqueous composition when diluted, for reducing microorganism on food surface, comprises preset amount of organic acid, surfactant and stabilizer.

DC A97 D13 D22

IN DELGADO, R; JERVIER, G L; ROLLINS, D K; ROSELLE, B J; TOLLENS, F R
PA (DELG-I) DELGADO R; (JERV-I) JERVIER G L; (ROLL-I) ROLLINS D K; (ROSE-I)
ROSELLE B J; (TOLL-I) TOLLENS F R; (PROC) PROCTER & GAMBLE CO
CYC 94
PI WO 2001064035 A2 20010907 (200201)* EN 37p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
US 2001046979 A1 20011129 (200202)
AU 2001041632 A 20010912 (200204)
ADT WO 2001064035 A2 WO 2001-US5582 20010222; US 2001046979 A1 Provisional US
2000-185676P 20000228, US 2001-794679 20010227; AU 2001041632 A AU
2001-41632 20010222
FDT AU 2001041632 A Based on WO 200164035
PRAI US 2000-185676P 20000228; US 2001-794679 20010227
AB WO 200164035 A UPAB: 20020105
NOVELTY - A stabilized; concentrated, acidic antimicrobial composition
(AAC) which forms a clear diluted aqueous treatment composition when
diluted, comprises (in weight%) organic acid (5-95), surfactant (1-80),
and stabilizer. AAC has a pH of 2-5, when diluted. The ratio of stabilizer
and the surfactant, is 10:1-1:20.
DETAILED DESCRIPTION - AAC which forms a clear diluted aqueous
treatment composition when diluted, comprises (in weight% (wt.%) organic
acid (5-95), surfactant (1-80), stabilizer, and optionally comprises
buffer, toxicologically-acceptable anti-foaming agent,
toxicologically-acceptable preservative, and perfume, flavoring agent
and/or coloring agent, and balance amount of compatible,
toxicologically-acceptable inert and/or minor ingredients. The AAC has a
pH of 2-5 when diluted. The ratio of stabilizer and the surfactant is
10:1-1:20. INDEPENDENT CLAIMS are also included for the following: (i)
Manufacture of the AAC comprising organic acid, powdered surfactant,
carbonate source, anti-foaming agent and non-aqueous liquid component,
which involves providing organic acid having mean particle size
distribution of 400-800 μ , to a mixing vessel, slowly adding non-aqueous
liquid component until it is uniformly distributed, mixing powder
surfactant having mean particle size of 10-150 μ , mixing carbonate
source having mean particle size of 100-600 μ , and mixing anti-foaming
agent at moderate shear, to form a uniform mixture; (ii) Method of
cleaning and/or reducing microorganisms on food surface or food contact
surface, by contacting the surface with AAC, which involves mixing 0.003
wt.% of organic acid, 0.003 wt.% of surfactant, and other ingredient as
above, and aqueous carrier comprising water and optionally low levels of
low molecular weight, toxicologically-acceptable organic solvents such as
ethanol and glycerol, except inert ingredients. AAC is free of any
material that is not toxicologically-acceptable, and is able to effect at
least 1 log reduction of targeted microorganism in less than 5 minutes.
The organic acid is citric acid, lactic acid, malic acid, salicylic acid,
acetic acid, adipic acid, fumaric acid, hydroxy acetic acid, dehydroacetic
acid, glutaric acid, tartaric acid, fumaric acid, succinic acid, propionic
acid, aconitic acid, sorbic acid, benzoic acid, gluconic acid, ascorbic
acid, alanine and/or lysine. The surfactant is anionic surfactant and/or
non-ionic surfactant; (iii) Method of promoting the sale of food items,
which involves performing the above cleaning and/or reducing microorganism
process, and providing informational indicia to communicate with a
consumer, to indicate that the food items have been treated with AAC; and
(iv) An article of manufacture for cleaning and/or reducing microorganisms
on food surface or food contact surface, which comprises a container, the
AAC, and a set of instructions which comprises instruction to clean and/or
reduce microorganism on the food surface or the food contact surface, by
diluting AAC with at least 75 parts of water to form a diluted aqueous

treatment composition, contacting the food surface or food contact surface with the diluted composition, and allowing the AAC to remain on the surface for at least 15 seconds.

USE - For cleaning surfaces and reducing microorganisms on surfaces of food or contacting food, such as produce such as fruits and vegetables, and meat, also for use in non-food contact hard surfaces, and soft surfaces such as cloths, carpets and fabrics, and for use as sanitizing rinse useful for cleaning/sanitizing medical smocks, hotel/hospital linens and nurse uniforms.

ADVANTAGE - The stabilizer effectively stabilizes a solution inter-facial tension, and prevent precipitation of the surfactant (claimed), and of other ingredients, and also provides in-use foam control. Hence, the acidic antimicrobial composition (AAC) is completely clear. Organic acids and surfactant in AAC, having effective antimicrobial activity, are highly efficacious against microbes such as *Salmonella choleraesuis* and *Staphylococcus aureus*. Hence, microorganism on food surfaces are efficiently reduced within a short period, preferably less than 1 minute. AAC effect at least 1 log reduction of targeted microorganisms in less than 5 minutes, preferably 1 minute. Further, AAC does not contain large amounts, and is free of any material that adversely affects palatability, hence the food need not be rinsed before consumption. AAC contacting food surface, shortly before ingestion, effectively minimize chances for recontamination, and hence provides safe food to eat. AAC does not have any objectionable odor for use on food, and its ingredients are toxicologically safe with safety pedigree to humans. AAC appears on a approved list for use with food, and all its ingredients are generally recognized as safe (GRAS) (according to United States Code of Federal Regulations (C.R)). Diluted AAC having low viscosity, has improved spreading property on food surface, especially on layers and rugosities. The low viscosity also improves drainage, with improved soil removal, and speed of drying. AAC added with the optional ingredients provides improved aesthetic appearance of the food. As the organic acid such as citric acid, is a natural acid, it is safe for use on household surfaces, especially food contact surfaces. Acid-carbonate reaction in the composition is efficiently prevented, by utilizing dense granular carbonate and coarse organic acid.

Dwg.0/0

TECH

UPTX: 20020105

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The **organic acid** is preferably citric **acid**.

Preferred **Composition**: The AAC preferably comprises 60-80 wt.% of **organic acid**, 4-25 wt.% of surfactant, 1-60 wt.%, preferably 3-30 wt.%, of buffer.

TECHNOLOGY FOCUS - FOOD - Preferred Indicia: The information. . . - INORGANIC CHEMISTRY - Preferred Components: The surfactant is optionally acid-sensitive amphoteric surfactant, preferably anionic surfactant, more preferably sodium lauryl **sulfate**. The buffer is sodium carbonate, sodium bicarbonate and/or **magnesium** carbonate hydroxide, preferably sodium carbonate. The carbonate source is sodium carbonate. Preferred Process: Fine sodium carbonate having mean particle size. . . the food. Preferred Properties: The ratio of stabilizer and the surfactant, is preferably 10:1-1:20, more preferably 1:1-1:10. The ratio of **organic acid** and the buffer is 100:1-1:10, preferably 20:1-1:1. The diluted AAC preferably has pH of 2.3-3.5, more preferably 2.5-3.2.

TECHNOLOGY FOCUS. . . Components: The stabilizer which is non-ionic materials, polymeric materials and/or electrolytes, preferably polypropylene glycol, polyoxyalkylene derivatives of propylene, polysorbate and/or **magnesium sulfate**, more preferably polypropylene glycol, is free of calcium.

L19 ANSWER 17 OF 38 WPIDS (C) 2002 THOMSON DERWENT
 AN 2001-529645 [58] WPIDS
 DNC C2001-157953
 TI Biocide for ingestion by live animals useful for controlling microbial populations in gastrointestinal tract comprises aqueous solution comprising peracid compound.
 DC B05 C03 D13
 IN GILETTO, A; HARGIS, B M; HERRON, K L; HITCHENS, G D; MCKENZIE, K S
 PA (LYNN-N) LYNNTECH INC
 CYC 82
 PI WO 2001052827 A1 20010726 (200158)* EN 33p
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SL SZ TZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE
 GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK
 MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ
 VN YU ZW
 AU 2000040425 A 20010731 (200171)
 US 6342528 B1 20020129 (200210)
 US 2002115719 A1 20020822 (200258)
 ADT WO 2001052827 A1 WO 2000-US8316 20000329; AU 2000040425 A AU 2000-40425
 20000329; US 6342528 B1 US 2000-487966 20000118; US 2002115719 A1 Cont of
 US 2000-487966 20000118, US 2001-981669 20011017
 FDT AU 2000040425 A Based on WO 200152827; US 2002115719 A1 Cont of US 6342528
 PRAI US 2000-487966 20000118; US 2001-981669 20011017
 AB WO 200152827 A UPAB: 20011010

NOVELTY - Biocide comprises an aqueous solution comprising a peracid compound (a).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for formation of the biocide by combining a 1-8C organic acid (b), an inorganic peroxide compound (c) and an optional inorganic acid (d).

ACTIVITY - Antibacterial.

8 Weeks old broilers were divided into 3 groups. All the birds were gavaged with 1 ml of a 1 multiply 108 of Salmonella enteritidis (microorganism). Then drinking water was administered to the birds. Group 1 (control) received only water, group 2 received perlactic acid (PL) (30 parts per million (ppm)) with the substrate added and group-3 received a combination of lactic acid (L) and hydrogen peroxide (L+H2O2 30 ppm) without the addition of the inorganic acid catalyst component. All groups were withdrawn after 8 hours.

At the time of kill, the upper gastrointestinal tract (GI) crops were aseptically collected after cervical dislocation. The crops were added to whirl-pac bags containing phosphate buffer saline (PBS) (10 ml). The bags were stomached for 30 seconds. After stomaching, 0.5 ml was removed and added to 4.5 ml PBS for dilution. 100 micro l per tube were then plated onto BGA with NO/NA. Group 2 and group 3 were plated from the whirl-pac bags by taking 100 micro l from the bag and spread plating it onto BGA plates. These plates were incubated for 24 hours at 37 deg. C and counted. After using the bags for dilution, tetrathionate broth (9 ml) was added. The bags were incubated along with plates. After 24 hours, 1 loopful of the bag content was streaked onto BGA plates. Group 2 achieved a 2.71 Log10 reduction in Salmonella in the crop while group 3 had only a 2.23 Log10 reduction as compared to the control.

MECHANISM OF ACTION - None given.

USE - For ingestion by living animals e.g. humans and other vertebrate animals or poultry for controlling a microbial population such as Salmonella, Campylobacter, E. coli, Listeria or Helicobacter in the gastrointestinal tract.

ADVANTAGE - The oral and non-invasive administration of the biocidal composition gives a high level of decontaminating effect beyond the oral cavity and into the intestinal regions of the animals, preventing contamination of meat surfaces during slaughter. The by-products formed by (a) are harmless to the animals to be slaughtered.

Dwg.0/5

TECH.

arylalkyl, aromatic group or heterocyclyl, and
n = at least 1.

(a) comprises performic, peracetic, perpropionic, peroxyheptanoic, peroxynonanoic, perlauric, monoperglutaric, diperglutaric, succinylperoxide, **magnesium** salt of peroxyphthalate, benzoyl peroxide, tert-butylhydroxyperoxide, perlactic, percitric, perbutyric, peroctanoic or perglycolic **acid**. The **solution** comprises (a) in a concentration of 0.00001-5%. (a) is in drinking water or in feed or foodstuffs. (b) is acetic, citric and/or **lactic acid**. The ratio of (b):(d):(c) is 10:0.01:1-1:0.01:10.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: (d) is a **sulfuric** acid acting as a catalyst. (c) is hydrogen peroxide, sodium peroxide, potassium peroxide, calcium peroxide, perborate, percarbonate, persulfate and/or permanganate.. . .

L19 ANSWER 18 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-502406 [55] WPIDS

CR 2001-514226 [40]

DNN N2001-372640 DNC C2001-151043

TI Hybrid composition used for e.g. bone repair, comprises water-based liquid component comprising cationic polymers and mono-phosphate salt, and powder component comprising calcium phosphate sources.

DC A96 B07 D22 E19 P34

IN CHAPUT, C; CHENITE, A

PA (BIOS-N) BIO SYNTECH CANADA INC; (BIOS-N) BIOSYNTECH CANADA INC

CYC 94

PI WO 2001041822 A1 20010614 (200155)* EN 80p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001019792 A 20010618 (200161)

ADT WO 2001041822 A1 WO 2000-CA1492 20001208; AU 2001019792 A AU 2001-19792 20001208

FDT AU 2001019792 A Based on WO 200141822

PRAI US 1999-169954P 19991209

AB WO 200141822 A UPAB: 20011024

NOVELTY - Hybrid composition (A) comprises:

(1) a water-based, thermo-gelling liquid comprising at least one water soluble cationic polymer, organic monophosphate source and optionally one water soluble organic monosulfonate, monosulfate or monocarboxylate source, and

(2) a solid component having calcium, fluoride, strontium, carbonate, and/or phosphate salt.

The composition gels at body temperature.

DETAILED DESCRIPTION - In situ self forming mineral polymer hybrid composition (A) comprises:

(1) a water-based, thermo-gelling liquid comprising at least one water soluble cationic polymer, organic monophosphate source and optionally one water soluble organic monosulfonate, monosulfate or monocarboxylate source, and having a pH of 6.5-7.4; and

(2) a solid component having calcium, fluoride, strontium, carbonate, and/or phosphate salt.

The composition gels at body temperature.

An INDEPENDENT CLAIM is also included for the preparation of (A) which comprises:

(a) preparing a first water-based liquid sub-component comprising hydrosoluble cationic polymer and at least 0.5% w/v chitosan, where the

first sub-component is stable at below 10 deg. C;

(b) preparing a second water-based liquid sub-component comprising at least one organic monophosphate source, and optionally a water-soluble organic monosulfonate, monosulfate, or monocarboxylate source;

(c) preparing the solid component;

(d) homogeneously mixing the second liquid sub-component and the solid component to form a dispersion that is stable at room temperature or below, and

(e) mixing the first liquid sub-component with the dispersion.

ACTIVITY - Osteopathic.

MECHANISM OF ACTION - None given.

USE - The composition is used for repair, regeneration, filling, and replacement of mammalian or human hard tissues e.g. bone, dentine, and enamel (claimed); as well as delivering drugs or bioreactive reagents to these tissues. Particularly, the composition can be injected into a defect, cavity, or interface of a body tissue e.g. a cancellous, cortical, or corticocancellous bone or hyaline or fibro-cartilage tissue (claimed). It may also be injected to the metaphysis or diaphysis of a bone or fractured bone (claimed). The composition is also used to retain orthopedic devices e.g. pin, prosthesis, and biodegradable fixation. It may also be used in orthopedic, plastic, cranio-maxillofacial, or dental surgery (claimed). It is also used in solitary bone lesions such as those observed in osteomyelitis, round cell lesions, fibrous dysplasia, bone cyst, chondromyxoid fibroma, osteosarcoma, non-ossifying sarcoma, endochondroma, chondroblastoma, and joint revision osteolysis. It is further applied at the interface with prosthesis or implant such as prosthetic joint (hip or knee) or a screw (pedicular).

ADVANTAGE - The composition forms a consistent gel-looking material at 37 deg. C and 100% humidity. It can be remolded in situ and is resorbable.

Dwg.0/17

TECH.

- ORGANIC CHEMISTRY - Preferred components: The liquid component is prepared from malic acid, propionic acid, organophosphoric acid, glycerophosphoric acid, **lactic acid**, ascorbic acid, formic acid, or acetic acid.

The organic monophosphate source comprises $\text{Na}_2\text{PO}_4\text{C}_3\text{H}_5(\text{OH})_2$, $\text{Fe}_2\text{PO}_4\text{C}_3\text{H}_5(\text{OH})_2$, $\text{K}_2\text{PO}_4\text{C}_3\text{H}_5(\text{OH})_2$, $\text{MgPO}_4\text{C}_3\text{H}_5(\text{OH})_2$, $\text{MnPO}_4\text{C}_3\text{H}_5(\text{OH})_2$, $\text{Ca}_2\text{PO}_4\text{C}_3\text{H}_5(\text{OH})_2$, $\text{Na}_2\text{PO}_7\text{C}_3\text{H}_7$, $\text{Na}_2\text{PO}_7\text{C}_4\text{H}_7$, $\text{K}_2\text{PO}_7\text{C}_4\text{H}_7$, . . . is 0.05-2 g/ml.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The liquid component is prepared from phosphoric or hydrochloric **acid**. The **liquid** component comprises water-soluble phosphate and/or carbonate salt. The solid component comprises calcium phosphate, calcium **sulfate**, calcium carbonate, and/or calcium titanate. The solid component comprises $\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}$, $\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$, CaHPO_4 , $\text{CaZn}_3(\text{PO}_4)_2$, CaZnPO_4 , CaNaPO_4 , $\text{Ca}_2\text{PO}_4\text{Cl}$, $\alpha\text{-Ca}_3(\text{PO}_4)_2$, $\beta\text{-Ca}_3(\text{PO}_4)_2$, $\text{Ca}_3(\text{PO}_4)_2 \cdot \text{H}_2\text{O}$, $\text{Ca}_4(\text{PO}_4)_2\text{O}$, . . . hydroxyapatite and tricalcium phosphate, preferably α - and/or β -tricalcium phosphate. The solid component also includes sodium carbonate, calcium carbonate, potassium carbonate, **magnesium** carbonate, **zinc** carbonate, $\text{Ca}_9\text{K}(\text{PO}_4)_5(\text{CO}_3)_2$, $\text{Ca}_{8.5}\text{Na}_{1.5}(\text{PO}_4)_4.5(\text{CO}_3)_2.5$ or $\text{Ca}_9(\text{PO}_4)_4.5(\text{CO}_3)_1.5$. The solid component additionally comprises carbonated calcium phosphate. The solid component also comprises sodium fluoride, $\text{Na}_2\text{Si}_6\text{F}$, potassium fluoride, KSi_6F , calcium fluoride, **magnesium** fluoride, **zinc** fluoride, or sodium fluorophosphate. The solid component includes fluorinated calcium phosphate. The solid component includes a strontium-containing calcium phosphate. Preferred. . .

TI Oral or parenteral formulation comprises ionizable substituted indolinone and carrier e.g. polyethylene glycol, buffers, surfactants, for treating e.g. cancer or restenosis.

DC B02

IN SHENOY, N; SORASUCHART, W

PA (SUGE-N) SUGEN INC

CYC 95

PI WO 2001037820 A2 20010531 (200146)* EN 249p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001019285 A 20010604 (200153)

EP 1233943 A2 20020828 (200264) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

ADT WO 2001037820 A2 WO 2000-US32277 20001122; AU 2001019285 A AU 2001-19285
20001122; EP 1233943 A2 EP 2000-982228 20001122, WO 2000-US32277 20001122

FDT AU 2001019285 A Based on WO 200137820; EP 1233943 A2 Based on WO 200137820

PRAI US 1999-167544P 19991124

AB WO 200137820 A UPAB: 20011129

NOVELTY - Formulation for parenteral or oral administration comprising an ionizable substituted indolinone containing at least one or more hydrocarbon chains substituted with at least one polar group, and carrier, is new.

DETAILED DESCRIPTION - New formulation for parenteral or oral administration comprises an ionizable substituted indolinone containing at least one or more hydrocarbon chains substituted with at least one polar group and carrier.

AN INDEPENDENT CLAIM is also included for the preparation of the formulation.

ACTIVITY - Cytostatic; Antipsoriatic; Vasotropic; Antiatherosclerotic; Antirheumatic; Antiarthritic; Osteopathic. The in vivo efficacy of 3-(2,4-dimethyl-5-(2-oxo-1,2-dihydro-indol-3-ylidenemethyl)-IH-pyrrol-3-yl)-propionic acid (Ia) to inhibit subcutaneous growth of multiple tumor types in athymic mice were evaluated. Tumor cell lines were implanted subcutaneously in the hindflank region of 8-12 week old BALB/c nu/nu female mice. Treatment with (Ia) commenced one day post implantation. The animals received 50 micro l injection of (Ia) in DMSO or DMSO alone daily for 25 days. Significant inhibition of tumor growth was observed following administration of (Ia) at 75 and 100 mg/kg. Inhibition of tumor growth was 79-86% compared to vehicle-treated control and mortality was 12.5% on both sides.

MECHANISM OF ACTION - Modulation of protein kinase activity.

USE - The formulation is used to treat protein kinase related disorders (claimed). The formulation is used to treat cancer, restenosis, fibrosis, psoriasis, osteoarthritis, rheumatoid arthritis, angiogenesis, atherosclerosis or diabetes.

ADVANTAGE - The formulation increases the relative bioavailability of (I) compared to an aqueous solution.

Dwg.0/0

TECH.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: (I) is solubilized by combining with a molar equivalent of a base or **acid solution** and then adding the other compounds. The base solution is selected from sodium hydroxide, ammonium hydroxide, triethylamine, ethylenediamine, N-methyl-D-glucamine, choline and/or triethanolamine. The **acid solution** is selected from hydrochloric acid, **sulfuric acid**, formic acid, **lactic acid**, malic acid, succinic acid, acetic acid, methanesulfonic acid, benzenesulfonic acid, and/or phosphoric acid.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Indoline: The ionizable. .
from polyoxyethylenepolypropylene glycols, polyoxyethylene castor oil derivatives, and/or polyoxyethyleneglycerol oxystearate. For oral administration the formulation may also contain sodium lauryl **sulfate**, polysorbate and/or cetylpyridinium chloride as surfactant.

Preferred Preservative: The preservative is selected from benzyl alcohol, methyl paraben, ethyl paraben and/or phenol. The lubricant is selected from **magnesium** stearate, sodium stearyl fumarate, glyceryl behenate and/or stearic acid.

Preferred Flow Enhancer: The flow enhancer is selected from colloidal silicon. . .

L19 ANSWER 20 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-211364 [21] WPIDS

DNC C2001-062918

TI Production of papermaking pulp from nonwood fiber source material by extracting source material with alkaline solution, reducing pH of source material, treating source material with ozone, and bleaching source material.

DC F09

IN BYRD, M V; HURTER, R W

PA (HURT-N) HURTERCONSULT INC; (UYNC-N) UNIV NORTH CAROLINA STATE

CYC 94

PI WO 2001016423 A1 20010308 (200121)* EN 55p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000066480 A 20010326 (200137)

US 6302997 B1 20011016 (200164)

ADT WO 2001016423 A1 WO 2000-US22921 20000821; AU 2000066480 A AU 2000-66480
20000821; US 6302997 B1 US 1999-385154 19990830

FDT AU 2000066480 A Based on WO 200116423

PRAI US 1999-385154 19990830

AB WO 200116423 A UPAB: 20010418

NOVELTY - A papermaking pulp is produced from a nonwood fiber source material by (a) extracting the source material with an alkaline pulping solution for at least atmospheric pressure; (b) reducing the pH of the source material to an acidic pH with an acid solution; (c) treating the acidic source material with ozone; and (d) treating the ozone-treated source material with a bleaching solution.

USE - For producing a papermaking pulp from a nonwood fiber source material.

ADVANTAGE - The method is cost effective, environmentally sound at small scale and odor-free. It keeps the number of processing steps or stages to a minimum, minimizes water usage, and uses chemicals which permit recovery of all internal filtrate streams. It removes high content of non-fibrous materials often found in nonwoods, e.g., pith, parenchymal cells or fines. The papermaking pulp produced has a Kappa number of at least 5, a brightness level of at least 70%, preferably at least 80%, International Standards Organization, and a freeness level of at least 400, preferably at least 550, ml Canadian Standard Freeness.
Dwg.0/6

TECH.

Solutions: The alkaline pulping solution comprises alkaline hydroxide, preferably sodium hydroxide (NaOH), potassium hydroxide, ammonium hydroxide, and/or calcium hydroxide. The **acid solution** comprises a mineral acid and/or an **organic acid**, and a chelating agent. Preferably, the acid is **sulfuric acid**, nitric

acid, phosphoric acid, and/or acetic **acid**. The bleaching **solution** is an alkaline peroxide bleaching solution or a chlorine-based bleaching solution, preferably chlorine dioxide. The alkaline peroxide bleaching solution comprises NaOH, hydrogen peroxide, **magnesium sulfate**, sodium silicate, and a chelant.

L19 ANSWER 21 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-009284 [01] WPIDS

DNC C2002-002196

TI Dental formulation for use as temporary restorative or cement, comprises hydrophobic organic matrix, inorganic particles, and anhydrous acid, polyacid or acid anhydride.

DC A14 A17 A26 A96 D21

IN BUTLER, D V; ORLOWSKI, J A

PA (SCPH-N) SCI PHARM INC

CYC 1

PI US 6284030 B1 20010904 (200201)* 5p

ADT US 6284030 B1 US 1999-408000 19990929

PRAI US 1999-408000 19990929

AB US 6284030 B UPAB: 20020105

NOVELTY - A dental formulation comprises a hydrophobic organic matrix of fluid or semi-solid viscous consistency, inorganic particles suspended in the hydrophobic organic matrix, and an anhydrous acid, polyacid or acid anhydride. The formulation is a single component mixture, which cures upon contact with oral fluids.

USE - For use as temporary dental restoratives or cements.

ADVANTAGE - The inventive dental formulation is non-toxic, resistant to deterioration in oral fluids, and possesses adequate water resistance. It can release fluoride, which prevents secondary decays and alleviates postoperative tooth sensitivity. It has superior mechanical strength, long shelf life, and adequate depth of cure, and shows minimal volumetric expansion upon curing.

Dwg.0/0

TECH.

- Preferred Components: The anhydrous acid may also comprise tartaric acid, citric acid, itaconic acid, oxalic acid, maleic acid, and/or **lactic acid**. The dental formulation further comprises additives, which affect the appearance of the formulation. The additives comprise dye or pigment to enhance esthetics or facilitate tooth structure distinction.

Preferred **Composition**: The anhydrous **acid** is present in 1-20 wt.% of the formulation.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The inorganic particles comprise 10-55 wt.% calcium **sulfate** or calcium **sulfate** hemihydrate, or 2-15 wt.% calcium phosphate salts (e.g., calcium hydrogen phosphate (CaHPO₄), Ca₈H₂(PO₄)₆, calcium phosphate (Ca₃(PO₄)₂), or its hydrates). The inorganic particles may also consist of **zinc** oxide, calcium oxide, calcium hydroxide, **magnesium** oxide, barium oxide, strontium oxide, calcium carbonate, calcium silicate, **magnesium** silicate, or **zinc** carbonate. The additives may also comprise titanium dioxide or iron oxide. The dental formulation further comprises fluoride-releasing salt consisting of sodium fluoride, stannous fluoride, sodium fluorosilicate, potassium fluorosilicate, **zinc** hexa fluorosilicate, or sodium monofluoro phosphate.

L19 ANSWER 22 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-366130 [38] WPIDS

CR 1999-045478 [04]; 1999-045479 [04]; 1999-105493 [09]; 1999-120346 [10]; 1999-120348 [10]; 1999-120349 [10]; 2000-564701 [52]; 2000-637491 [61]; 2001-308320 [32]; 2001-316210 [33]; 2001-316211 [33]; 2001-316212 [33]; 2001-335630 [35]; 2001-355061 [37]; 2001-367298 [38]

DNC C2001-112192

TI Leave-on antimicrobial composition useful for skin germ reduction and acne treatment comprises an antimicrobial agent, an anionic surfactant, a proton donor and water.

DC B05 C03 D22

IN BAIER, K G; BAKKEN SCHUETTE, T A; BEERSE, P W; CHEN, R W; MORGAN, J M

PA (PROC) PROCTER & GAMBLE CO

CYC 1

PI US 6217887 B1 20010417 (200138)* 15p

ADT US 6217887 B1 CIP of US 1997-869303 19970604, US 1999-323531 19990601

PRAI US 1999-323531 19990601; US 1997-869303 19970604

AB US 6217887 B UPAB: 20020730

NOVELTY - A leave-on antimicrobial composition at pH of 3-6 has, a One-wash Immediate Germ Reduction Index (OIGRI; ASTM E 1174-94) greater than 1.0 and a Mildness Index (MI; J. Soc. Cosmet. Chem., 46, 67, 1995) greater than 0.3, comprises: (a) 0.001-5 wt.% antimicrobial agent; (b) 0.05-10 wt.% anionic surfactant; (c) 0.1-10 wt.% proton donor other than a 4-20C alkyl fatty acid; and (d) 0-99.85 wt.% water.

ACTIVITY - Antibacterial; fungicide; virucide; dermatological; antiseborrheic.

No specific biological data given.

MECHANISM OF ACTION - None given.

USE - The composition is effective against Gram-positive and -negative bacteria, fungi, yeasts, molds and viruses (claimed) and is useful for providing immediate germ reduction of bacteria on human skin and for treating acne.

ADVANTAGE - The composition is highly efficacious in reducing the number of germs on the skin and is mild to the skin.

Dwg.0/0

TECH. . . .

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The leave-on microbial is selected from triclosan (preferred), triclocarban, piroctone olamine, p-chloro-m-xylene (PCMX), zinc pyrithione (ZPT) or natural essential oils.

This has a pH of 3.5-5, an OIGRI of more than 1.5 and a . . . of (d). The anionic surfactant has a Microtox Response Index of less than 150. The proton donor is either an **organic acid** with a buffering capacity of more than 0.005 or a mineral **acid**. The **composition** can include 0.1-30 (preferably 0.2-10) wt.% of a lipophilic skin moisturizer.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The anionic surfactant is selected from sodium or ammonium alkyl **sulfates** and ether **sulfates** with chain lengths of 12 and 14C atoms, olefin sulfonates with chain lengths of 14 and 16C atoms, and paraffin. .

L19 ANSWER 23 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-167698 [17] WPIDS

DNN N2001-120889 DNC C2001-049927

TI Joining of aluminum alloy body to a metal support structure useful as vehicle components involves interacting aluminum oxide in the body's surface layer with a phosphorus-containing organic acid.

DC A81 E11 G03 P52

IN COSTRINI, J V; MARINELLI, J M; MCCLEARY, S F; NITOWSKI, G A; SIEMON, J T

PA (ALUM) ALUMINUM CO OF AMERICA; (ALUM) ALCOA INC

CYC 22

PI US 6167609 B1 20010102 (200117)* 5p

WO 2002031073 A1 20020418 (200233)# EN

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: CA JP MX

ADT US 6167609 B1 US 1997-998498 19971226; WO 2002031073 A1 WO 2000-US27935 20001010

PRAI US 1997-998498 19971226; WO 2000-US27935 20001010

AB US 6167609 B UPAB: 20020117

NOVELTY - Joining of aluminum alloy body to a metal support structure involves interacting aluminum oxide in the surface layer of the body with a phosphorus-containing **organic acid** to form a functionalized layer.

DETAILED DESCRIPTION - Joining of aluminum alloy body to a metal support structure comprises:

(i) providing an aluminum alloy body having a surface layer containing **magnesium** and aluminum oxides;

(ii) cleaning the surface layer of the body with an **acidic solution** to dissolve the **magnesium** oxide;

(iii) interacting aluminum oxide in the surface layer with a phosphorus-containing **organic acid** to form a functionalized layer;

(iv) applying a polymeric adhesive layer to the functionalized layer, and

(v) joining the polymeric adhesive layer to a metal support structure to form a vehicle assembly. The **acid solution** contains phosphoric, **sulfuric**, nitric and/or hydrofluoric acid(s).

USE - For joining aluminum alloy body to a metal support structure useful as vehicle components, e.g., automobiles bodies, doors, truck decks, and hood lids.

ADVANTAGE - The organic surface pretreatment contains less than 1 wt.% chromium and preferably no chromium. Environmental concerns associated with prior art chromate conversion coatings are eliminated. Dwg.0/1

AB

body to a metal support structure involves interacting aluminum oxide in the surface layer of the body with a phosphorus-containing **organic acid** to form a functionalized layer.

DETAILED DESCRIPTION - Joining of aluminum alloy body to a metal support structure comprises:

(i) providing an aluminum alloy body having a surface layer containing **magnesium** and aluminum oxides;

(ii) cleaning the surface layer of the body with an **acidic solution** to dissolve the **magnesium** oxide;

(iii) interacting aluminum oxide in the surface layer with a phosphorus-containing **organic acid** to form a functionalized layer;

(iv) applying a polymeric adhesive layer to the functionalized layer, and

(v) joining the polymeric adhesive layer to a metal support structure to form a vehicle assembly. The **acid solution** contains phosphoric, **sulfuric**, nitric and/or hydrofluoric acid(s).

USE - For joining aluminum alloy body to a metal support structure useful as vehicle.

L19 ANSWER 24 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-120475 [16] WPIDS

DNC C2002-036818

TI Method of preparing coatings suitable for protection of steel parts against corrosion.

DC M11

IN GUBENKOVA, O A; LOGACHEVA, Z V; MAMONTOVA, N N; OVSYANNIKOVA, L V; PLASKEEV, E V; PRIBYLOVA, L I; ZHIRNOV, A D

PA (AVIA-R) AVIATION MATERIALS RES INST

CYC 1

PI RU 2177055 C1 20011220 (200216)*

ADT RU 2177055 C1 RU 2000-107617 20000330

PRAI RU 2000-107617 20000330

AB RU 2177055 C UPAB: 20020308

NOVELTY - To form composite coating of steel part, the latter is

degreased, activated by **acid solution**, subjected to deposition of **zinc** coating in alkaline zincate electrolyte containing tin complex compound with polybasic **organic acids**, phosphatation in **solution** containing nitrates, **zinc**, barium, **zinc** monophosphate, and a surfactant (mixture of sodium salts of **sulfate** esters of secondary alcohols containing 6-16 carbon atoms), and treatment with chromate solution.

USE - Mechanical engineering and corrosion protection.

ADVANTAGE - Improved protection properties and increased corrosion resistance compared to **zinc** coating. 3 cl, 2 tbl
Dwg.0/0

AB RU 2177055UPAB: 20020308

NOVELTY - To form composite coating of steel part, the latter is degreased, activated by **acid solution**, subjected to deposition of **zinc** coating in alkaline zincate electrolyte containing tin complex compound with polybasic **organic acids**, phosphatation in **solution** containing nitrates, **zinc**, barium, **zinc** monophosphate, and a surfactant (mixture of sodium salts of **sulfate** esters of secondary alcohols containing 6-16 carbon atoms), and treatment with chromate solution.

USE - Mechanical engineering and corrosion protection.

ADVANTAGE - Improved protection properties and increased corrosion resistance compared to **zinc** coating. 3 cl, 2 tbl
Dwg.0/0

L19 ANSWER 25 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-533834 [59] WPIDS

DNC C2001-159157

TI Corrosion inhibitor composition for pickling scale.

DC E19 M14

IN HAN, M S

PA (HANM-I) HAN M S

CYC 1

PI KR 2001025131 A 20010406 (200159)*

KR 311853 B 20011018 (200234)

ADT KR 2001025131 A KR 1999-40260 19990918; KR 311853 B KR 1999-40260 19990918

FDT KR 311853 B Previous Publ. KR 2001025131

PRAI KR 1999-40260 19990918

AB KR2001025131 A UPAB: 20011012

NOVELTY - A corrosion inhibitor composition for pickling scale is provided to represent superior corrosion inhibition power, effectively remove scale formed in quite a complicated and various shapes, and improve pickling effects by mixing an appropriate amount of corrosion inhibitor composition with a hydrochloric **acid** pickling **solution**, **sulfuric acid** pickling **solution** and **organic acid** pickling **solution** before using.

DETAILED DESCRIPTION - The corrosion inhibitor composition for pickling comprises a nitrogen compound aqueous solution containing 15 to 60 weight parts of one or more amines selected from the group consisting of 2-aminoethanolamine, diethanolamine and triethanolamine, 4 to 15 weight parts of thiourea, 5 to 30 weight parts of hexamethylenetetraamine, 20 to 65 weight parts of aminobenzene, 5 to 30 weight parts of diethyleneimide and 5 to 30 weight parts of ethylenediamine per 100 weight parts of water; a phosphate aqueous solution containing 3 to 20 weight parts of one or more sodium phosphates selected from the group consisting of sodium tetraphosphate, sodium hexametaphosphate and sodium metaphosphate, 3 to 30 weight parts of **zinc** oxide, 10 to 80 weight parts of phosphoric acid and 50 to 150 weight parts of 98% **sulfuric acid** per 100 weight parts of water; and a surfactant and an anti-foaming agent, wherein the nitrogen compound aqueous solution and the phosphate aqueous solution are contained in the composition in a weight ratio of 1:1 to 2.5.

Dwg.0/0

AB

complicated and various shapes, and improve pickling effects by mixing an appropriate amount of corrosion inhibitor composition with a hydrochloric **acid pickling solution, sulfuric acid pickling solution and organic acid pickling solution** before using.

DETAILED DESCRIPTION - The corrosion inhibitor composition for pickling comprises a nitrogen compound aqueous solution containing 15 to . . . phosphates selected from the group consisting of sodium tetraphosphate, sodium hexametaphosphate and sodium metaphosphate, 3 to 30 weight parts of **zinc** oxide, 10 to 80 weight parts of phosphoric acid and 50 to 150 weight parts of 98% **sulfuric** acid per 100 weight parts of water; and a surfactant and an anti-foaming agent, wherein the nitrogen compound aqueous solution. . .

L19 ANSWER 26 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-478092 [52] WPIDS

DNN N2001-353837 DNC C2001-143606

TI Manufacture of formulation for Nori seaweed culture, involves wet grinding hydrophobic organic acid such as fumaric acid, adipic acid and/or succinic acid with water and acidic solution.

DC C03 P13

PA (DAII-N) DAIICHI SEIMO KK

CYC 1

PI JP 2001122707 A 20010508 (200152)* 6p

ADT JP 2001122707 A JP 2000-238185 20000807

PRAI JP 1999-232517 19990819

AB JP2001122707 A UPAB: 20010914

NOVELTY - Formulation for Nori seaweed culture is manufactured by wet grinding of hydrophobic organic acid such as fumaric acid, adipic acid and/or succinic acid with water or an acidic solution.

USE - Used for Nori seaweed culture.

ADVANTAGE - The formulation is hygroscopic and dissolved immediately. The formulation is prepared cheaply and safe to rapidly soluble Nori seaweed culture.

Dwg.0/0

TECH UPTX: 20010914

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred components: The **acidic solution** in the formulation is **lactic acid**, acetic acid, formic acid, propionic acid, hydrochloric acid, phosphoric acid, nitric acid and/or **sulfuric** acid. Saponified type polyvinyl alcohol or **magnesium** hydroxide having a grain size of upto 10 micro-m is used as dispersion stabilizer during manufacture of formulation. The grain size of hydrophobic **organic acid** during wet grinding is 200 micro-m or less.

L19 ANSWER 27 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-459677 [50] WPIDS

DNN N2001-340917 DNC C2001-139035

TI Processing of Nori seaweeds, involves immersing Nori seaweed in process liquid containing iodide, mineral salt and acid in sea water, after adjusting specific gravity and pH to preset range.

DC C04 D16 P13

PA (FUSO) FUSO KAGAKU KOGYO KK

CYC 1

PI JP 2001086889 A 20010403 (200150)* 12p

ADT JP 2001086889 A JP 1999-270192 19990924

PRAI JP 1999-270192 19990924

AB JP2001086889 A UPAB: 20010905

NOVELTY - Processing Nori seaweed, comprising adding mineral salt, iodide and acid to sea water and adjusting specific gravity and pH to 1.03-1.20 and 0.5-5.0, respectively, is new. The Nori seaweed or culture ingredient to which Nori seaweed is adhered is immersed in the process liquid.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the process liquid, used in the novel method.

USE - For processing Nori seaweed used as foodstuffs.

ADVANTAGE - The process liquid effectively exterminates and prevents diseases such as red rod disease, white coarse structure disease in short period of time. The amount of mineral salt used can be reduced by adding iodide. Transport of mineral salt to fishery and melt operation to sea water are easier. Processing effect is improved by using the surfactant. Harmful effect to human body is prevented.

Dwg.0/0

TECH

UPTX: 20010905.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Iodide: The iodide is sodium iodide, ammonium iodide, calcium iodide, **magnesium** iodide, or preferably potassium iodide.

Preferred Mineral Salt: The mineral salt is alkali metal salt, alkaline earth metal salt, ammonium salt or iron salt. The mineral salt is chosen from chlorides, **sulfates** or nitrates of sodium, **magnesium**, calcium, potassium, ammonium and iron.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Acid: The acid is inorganic acid, carboxylic acid or organic phosphoric acid. The inorganic acid is **sulfuric** acid, nitric acid, hydrochloric acid, phosphoric acid. The carboxylic acid is maleic acid, citric acid, acetic acid, **lactic acid**, fumaric acid, gluconic acid, malonic acid, formic acid, tartaric acid, acrylic acid, crotonic acid, oxalic acid, succinic acid and glutaric acid. The organic phosphoric acid is phytic acid, metaphosphoric acid and polyphosphoric acid.

Preferred Process Liquid: The process liquid includes a cationic surfactant such as quaternary ammonium salt or anionic surfactant such as sulfosuccinic acid surfactant, phosphate group surfactant, alkyl **sulfate** group surfactant and polyoxyethylene alkyl ether **sulfate** group surfactant.

L19 ANSWER 28 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-391866 [42] WPIDS

DNN N2001-288333 DNC C2001-119463

TI Purification of polluted soil containing organochlorine compounds involves heating soil to emit pollutant and contacting with functional water under light irradiation to cause its decomposition.

DC J01 P43

IN KATO, K; KAWAGUCHI, M

PA (CANO) CANON KK; (KATO-I) KATO K; (KAWA-I) KAWAGUCHI M

CYC 28

PI EP 1110629 A2 20010627 (200142)* EN 28p

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT

RO SE SI TR

JP 2001239252 A 20010904 (200158) 19p

US 2002008069 A1 20020124 (200210)

ADT EP 1110629 A2 EP 2000-128286 20001222; JP 2001239252 A JP 2000-181169 20000616; US 2002008069 A1 US 2000-741332 20001221

PRAI JP 2000-181169 20000616; JP 1999-363832 19991222

AB EP 1110629 A UPAB: 20010726

NOVELTY - Purification of polluted soil (1) involves heating the soil to emit the pollutant and bringing the emitted pollutant into contact with functional water under light irradiation to cause its decomposition.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) An apparatus for purifying polluted soil,

(2) An apparatus for decomposing a polluted gas, and

(3) An apparatus (3) for generating a chlorine-containing gas comprising a functional water container, with a water supply, two gas supplies, for the gas through the functional water and for taking the chlorine-containing gas to another container. The concentration of chlorine in the chlorine-containing gas can be measured.

USE - For purifying soil polluted with organochlorine compounds.

ADVANTAGE - Most current methods remove the pollutants from the soil, and then require further detoxification treatment. The novel system treats the polluted soil in a simple, stable and environmentally-friendly manner, and actually decomposes the pollutants as part of the treatment.

DESCRIPTION OF DRAWING(S) - The drawing schematically shows an apparatus for purifying polluted soil.

polluted soil 1

functional water generator 3

light source 4

heater 5

water discharge pipe 6

purified gas discharge pipe 7

stirrer 12

Dwg.1/9

TECH.

and/or potassium chloride. It is especially acid functional water produced at the anode. The functional water may be an aqueous **solution** containing hypochlorous **acid**, especially an aqueous solution of especially sodium hypochlorite and/or potassium hypochlorite, in which case it further contains an inorganic or **organic acid**.

The water has pH of 1-4, an oxidation-reduction potential (Pt working electrode, and silver-silver chloride electrode as reference) of 800-1500. . . 2-100 mg/l.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Material: The inorganic compound mixed with the polluted soil is quick lime, **magnesium** oxide, barium oxide, strontium oxide, sodium oxide, potassium oxide, and/or anhydrides of calcium **sulfate** and **magnesium sulfate**.

Preferred Acid: The acid included in the aqueous solution of hypochlorite is hydrochloric acid, hydrofluoric acid, oxalic acid, **sulfuric** acid, phosphoric acid, boric acid, acetic acid, formic acid, malic acid and/or citric acid.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - . . .

L19 ANSWER 29 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2001-245928 [26] WPIDS

DNC C2001-074113

TI Silicone containing composition useful for treatment of textiles, especially wool, containing organosiloxane and diepoxide/diamine reaction product giving textiles of very good wash-and-wear properties.

DC A14 A26 A87 F06

IN HARALD, C; JURGEN, R; SIMPERT, L; THEODOR, A; ANGELE, T; CHROBACZEK, H; LUEDEMANN, S; RIEDMANN, J

PA (CIBA) CIBA SPEZIALITATENCHEMIE PFERSEE GMBH; (CIBA) CIBA SPEZIALITAETENCHEMIE PFERSEE GMBH

CYC 28

PI DE 19937477 A1 20010208 (200126)* 9p

AU 2000045069 A 20010208 (200126)

EP 1076078 A1 20010214 (200126) DE

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

JP 2001098155 A 20010410 (200128) 14p

CN 1283654 A 20010214 (200130)

ADT DE 19937477 A1 DE 1999-19937477 19990807; AU 2000045069 A AU 2000-45069 20000704; EP 1076078 A1 EP 2000-115808 20000722; JP 2001098155 A JP 2000-238293 20000807; CN 1283654 A CN 2000-122553 20000807

PRAI DE 1999-19937477 19990807

AB DE 19937477 A UPAB: 20010515

NOVELTY - A composition containing components A and B where A an organosiloxane and B is a reaction product from the reaction of diepoxide

with a diamine or a salt of the reaction product and an acid.

DETAILED DESCRIPTION - A composition containing components A and B where A is an organosiloxane and B is a reaction product from the reaction of diepoxide with a diamine or a salt of the reaction product and an acid.

The organosiloxane A has end groups of formula (I) $X_3-Si-O-$, and units of formula (II) and (III) in the polysiloxane chain, where:

all the R = phenyl, 1-4C alkyl,
all the X = R, OH, or OR, and at least one of the X = OH or OR,
 $R' = (SiRR'O)_mSiX_3$,
all the R'' = R or $O(SiR_2O)_nSiX_3$,
and m and n = 0-200, preferably 0-20,

USE - The composition is useful for treatment of fiber materials, e.g. textiles, where components A and B are applied to the fibers simultaneously or in succession (claimed), and of fiber materials comprising 50-100 wt.% wool (claimed).

ADVANTAGE - The composition is outstandingly suitable for decreasing the shrinkage and clogging up of wool, and gives textiles of very good wash-and-wear properties.

Dwg.0/0

TECH.

salt of such a reaction product or an acid, where d = 2-8. Component B is a salt of an **organic acid**, preferably a 1-4C monocarboxylic acid. The **composition** contains a polyvinyl alcohol (component E) and a metals salt (component F), and/or a cationic or non-ionic tenside (component G), where the metal salt is selected from carboxylates, **sulfates** or halogenides, of alkali, alkali earth metals, Ti, Sn, or **Zn**. The composition is an aqueous solution or dispersion.

L19 ANSWER 30 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-182196 [16] WPIDS

DNC C2000-056908

TI New stable, water-soluble zinc pyruvates, used e.g. for treating diabetes, common cold, viral infections or zinc deficiency.

DC B05

IN PARADIES, H H; PISCHEL, I

PA (SUDD) SKW TROSTBERG AG

CYC 87

PI WO 2000002841 A1 20000120 (200016)* DE 36p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
TT UA UG US UZ VN YU ZA ZW

AU 9950341 A 20000201 (200028)

DE 19830770 C1 20000518 (200029)

EP 1095007 A1 20010502 (200125) DE

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

US 6307080 B1 20011023 (200165)

JP 2002520303 W 20020709 (200259) 30p

ADT WO 2000002841 A1 WO 1999-EP4812 19990708; AU 9950341 A AU 1999-50341 19990708; DE 19830770 C1 DE 1998-19830770 19980709; EP 1095007 A1 EP 1999-934636 19990708, WO 1999-EP4812 19990708; US 6307080 B1 WO 1999-EP4812 19990708, US 2000-700381 20001213; JP 2002520303 W WO 1999-EP4812 19990708, JP 2000-559073 19990708

FDT AU 9950341 A Based on WO 200002841; EP 1095007 A1 Based on WO 200002841; US 6307080 B1 Based on WO 200002841; JP 2002520303 W Based on WO 200002841

PRAI DE 1998-19830770 19980709

AB WO 200002841 A UPAB: 20000330

NOVELTY - Water-soluble zinc pyruvates (I) are new.

DETAILED DESCRIPTION - Water-soluble zinc pyruvates of formula (I)

are new.

x = 1.8-2.2;

n = 0-5.

INDEPENDENT CLAIMS are included for:

(i) a pharmaceutical composition containing a water-soluble zinc pyruvate (especially (I)) as active agent, together with carriers, diluents and auxiliaries; and

(ii) the preparation of (I).

ACTIVITY - Antidiabetic; antiviral; cytoprotective; antibacterial; antifungal; nutritional; vulnerary; gastrointestinal; dermatological; antialopecia.

Zinc pyruvate had an IC50 value of 25.3 μ M for the inhibition of influenza virus induced hemagglutination of erythrocytes, and caused no lysis of erythrocytes at concentrations below 1 mg/ml.

MECHANISM OF ACTION - Zinc source; pyruvate source; radical scavenger.

USE - For treatment of diabetes, prophylaxis of the common cold, inhibition of viruses, cytoprotection, as microbicide, as radical scavenger or as nutritional supplement for the prophylaxis and prevention of zinc deficiency symptoms (e.g. growth disorders in children or adults, weight loss, increased susceptibility to infection, slow wound healing, taste, smell or sight deficiency, delayed puberty, appetite loss, diarrhea, skin disease, hair loss and emotional disorders) (all claimed). (I) show antiviral activity against influenza -A and -B viruses, herpes I, II and III viruses and rhinoviruses; antimicrobial activity against bacterial infections (e.g. *Pseudomonas immunofluorescens*, *Pseudomonas aerogenes*, *Staphylococcus* and *Streptococcus*), sinusitis, tonsillitis or catarrhal inflammation of viral or bacterial origin, pyoderma and furuncles, and in septic wound treatment; and antimycotic activity against dermatomycosis and general mycosis; and are thus useful e.g. in post-surgical wound healing. (I) also reduce active oxygen and/or hydroxyl radicals, and thus show antiinflammatory and cytoprotective effects.

ADVANTAGE - (I) can be prepared in high purity (in particular free of toxic by-products and decomposition products of pyruvic acid). Due to the low toxicity, (I) can be administered safely over long periods of several weeks to months. (I) have synergistic therapeutic effect (e.g. in antiviral and radical scavenging activity) relative to mixtures of zinc and pyruvate. They also have good storage and heat stability.

Dwg.0/0

TECH.

The pyruvate anion is present as 2,2-dihydroxypropionate. (I) is in solid microcrystalline form.

Preparation: Claimed preparation of (I) involves reacting **zinc** salts of **organic acids** or acidic organic keto- or hydroxy compounds with pyruvic acid at -20 to +90 (preferably 10-50) degreesC, optionally in presence of a solvent or diluent.

Preferred Process: The **organic acid** is formic, acetic, propionic, butyric, lactic, ascorbic, citric, tartaric, succinic, maleic, fumaric, malic, aspartic, benzoic, gluconic, isovaleric or oleic acid, glycine or lysine. The starting **zinc** salt is used in anhydrous, hydrated or moist form, and the pyruvic acid is used as anhydrous **acid**, aqueous **solution** or solution in a solvent or diluent. The reaction solvent or diluent is an organic solvent (specifically an alcohol, ether, ketone, ester, **organic acid** or aliphatic or aromatic hydrocarbon) and/or water. Pyruvic acid may be formed in situ, e.g. by reaction of an alkali metal pyruvate with an inorganic acid (e.g. **sulfuric** or hydrochloric acid) at -20 to +90 (preferably -10 to 60) degreesC.

L19 ANSWER 31 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-349284 [30] WPIDS

DNC C2000-106078

TI Reducing pilling of a pillable, water absorbent cellulosic pile fabric,

involves applying a composition including an acidic agent to cellulosic pile fabric and heating the fabric.

DC E19 F06

IN CALDWELL, M A

PA (SPRI-N) SPRINGS IND INC

CYC 1

PI US 6051034 A 20000418 (200030)* 7p

ADT US 6051034 A US 1998-164234 19980930

PRAI US 1998-164234 19980930

AB US 6051034 A UPAB: 20000624

NOVELTY - A pilling of a pillable, water absorbent cellulosic pile fabric is reduced by applying a composition containing 0.01-20 wt.% acidic agent and optionally a fabric softener to the cellulosic pile fabric, and heating the fabric under conditions to reduce pilling and to minimize decrease in water absorbency.

USE - For reducing pilling of a pillable, water absorbent cellulosic pile fabric.

ADVANTAGE - Cellulosic towels are produced that are pill-free without decreasing water absorbency, softness, and retaining tensile strength for serviceability.

Dwg.0/0

TECH.

200-400, preferably 285-310 degreesF for 3-60 minutes.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Agent: The acidic agent is an **organic acid** of formic acid, citric acid, oxalic acid, malic acid, propionic acid, benzenesulfonic acid, and/or toluenesulfonic acid; a mineral acid from **sulfuric acid**, hydrochloric acid, phosphoric acid, and/or nitric acid; and/or an acid forming materials from Lewis acid and/or acid forming salts.

Preferred Composition: The composition comprises an **organic acid**, preferably malic acid.

Preferred Softener: The fabric softener can be cationic fabric softeners, non-ionic fabric softeners, and/or anionic fabric softener.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Material: The acid is **magnesium chloride**, **magnesium bromide**, **magnesium sulfate**, **magnesium nitrate**, **zinc nitrate**, ammonium nitrate, ammonium **sulfate**, ammonium chloride, **zinc chloride**, and/or aluminum chloride. Preferred Composition: The **composition** comprises an **acid forming salt**, preferably **magnesium chloride**.

L19 ANSWER 32 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-316778 [27] WPIDS

DNC C2000-095713

TI A light duty detergent for cleaning hard surfaces, comprises ethoxylated alkyl ether sulfate anionic surfactant, a sulfonate, an organic acid and water, has desirable cleansing properties and mildness to the human skin.

DC A25 A97 D25 E19

IN BLANVALET, C; LEONARD, I; MASSAUX, J; TOUSSAINT, C

PA (COLG) COLGATE PALMOLIVE CO

CYC 95

PI US 6046148 A 20000404 (200027)* 6p

WO 2001025392 A1 20010412 (200123) EN

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000078362 A 20010510 (200143)

EP 1216294 A1 20020626 (200249) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI

ADT US 6046148 A US 1999-410826 19991001; WO 2001025392 A1 WO 2000-US26640
20000928; AU 2000078362 A AU 2000-78362 20000928; EP 1216294 A1 EP
2000-968451 20000928, WO 2000-US26640 20000928
FDT AU 2000078362 A Based on WO 200125392; EP 1216294 A1 Based on WO 200125392
PRAI US 1999-410826 19991001
AB US 6046148 A UPAB: 20000606

NOVELTY - An **acidic** light duty **liquid** detergent is in the form of a microemulsion and is formulated with an anionic surfactant which has desirable cleaning properties and mildness to the human skin. The detergent has high foaming and cleaning properties which kills bacteria.

DETAILED DESCRIPTION - A clear microemulsion light duty liquid cleaning composition comprises:

- (a) 8-30 % of an alkali metal salt of a sulfonated anionic surfactant;
- (b) 2-15 % of an alkali metal salt of 8-18C ethoxylated alkyl ether **sulfate** and/or 1 8-18C alkyl ether **sulfate**;
- (c) 0-10 % of an ethoxylated nonionic surfactant;
- (d) 0.01-5 % of a polyethylene glycol;
- (e) 0.1-5 % of an **organic acid** selected from benzoic acid, malonic acid, fumaric acid, succinic acid, glutaric acid, and ascorbic acid and their mixtures;
- (f) 0-10 % of at least one solubilizing agent;
- (g) 0.5-14 % of a cosurfactant;
- (h) 0.05-5 % of an inorganic **magnesium** salt;
- (i) 0.5-8 % of water insoluble organic ester or a water insoluble material selected from terpenes, and essential oils;
- (j) 0-2% of a thickener; and
- (k) the balance water.

An INDEPENDENT CLAIM is included for a composition including the components of the claimed composition except for (i), where 0-8 % of a water insoluble organic ester or a water insoluble material selected from terpenes, and essential oils is used.

USE - Used for cleaning hard surfaces and particularly for removing grease and grease soil.

ADVANTAGE - Imparts mildness to the skin.

Dwg.0/0

AB US 6046148 UPAB: 20000606
NOVELTY - An **acidic** light duty **liquid** detergent is in the form of a microemulsion and is formulated with an anionic surfactant which has desirable cleaning properties. . . metal salt of a sulfonated anionic surfactant;

- (b) 2-15 % of an alkali metal salt of 8-18C ethoxylated alkyl ether **sulfate** and/or 1 8-18C alkyl ether **sulfate**;
- (c) 0-10 % of an ethoxylated nonionic surfactant;
- (d) 0.01-5 % of a polyethylene glycol;
- (e) 0.1-5 % of an **organic acid** selected from benzoic acid, malonic acid, fumaric acid, succinic acid, glutaric acid, and ascorbic acid and their mixtures;
- (f) 0-10 % of at least one solubilizing agent;
- (g) 0.5-14 % of a cosurfactant;
- (h) 0.05-5 % of an inorganic **magnesium** salt;
- (i) 0.5-8 % of water insoluble organic ester or a water insoluble material selected from terpenes, and essential oils;

L19 ANSWER 33 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-353662 [31] WPIDS

DNC C2000-108168

TI Detergent composition having good massaging and cleaning effects contains salt particles stably in fatty acid salt.

DC D21
PA (FUTA-N) FUTABA KAGAKU KK
CYC 1
PI JP 2000109895 A 20000418 (200031)* 4p
ADT JP 2000109895 A JP 1998-279641 19981001
PRAI JP 1998-279641 19981001
AB JP2000109895 A UPAB: 20000630
NOVELTY - A detergent composition based on a fatty acid salt(s) contains particles of one or more of specified salts, dispersed uniformly and adhered with the fatty acid salt produced by salting out with the compound(s).
DETAILED DESCRIPTION - A detergent composition based on a fatty acid salt (s) contains particles of one or more compounds of **magnesium**, calcium and aluminum chlorides, **magnesium** and aluminum **sulfates**, **magnesium**, calcium and aluminum nitrates, **magnesium** and calcium acetates, calcium lactate, urea, inorganic and **organic acid** salts of amino acids and inorganic and organic alkali salts of amino acids, and the particles are dispersed uniformly in the fatty acid salt and adhered with the fatty acid salt produced by salting out with the compound(s) constituting them. Preferably, the particles are adhered preliminarily with the salted-out fatty acid salt over their entire surfaces.
USE - Useful as a detergent combining massaging and cleaning effects during bathing.
ADVANTAGE - The invention permits convenient, efficient, stable and uniform dispersion of particles of water-soluble compounds in a composition based on a fatty **acid** salt. The **composition** has good cleaning and massaging effects in bathing.
Dwg.0/0

AB
. . .
DESCRIPTION - A detergent composition based on a fatty acid salt (s) contains particles of one or more compounds of **magnesium**, calcium and aluminum chlorides, **magnesium** and aluminum **sulfates**, **magnesium**, calcium and aluminum nitrates, **magnesium** and calcium acetates, calcium lactate, urea, inorganic and **organic acid** salts of amino acids and inorganic and organic alkali salts of amino acids, and the particles are dispersed uniformly in. . . invention permits convenient, efficient, stable and uniform dispersion of particles of water-soluble compounds in a composition based on a fatty **acid** salt. The **composition** has good cleaning and massaging effects in bathing.
Dwg.0/0

L19 ANSWER 34 OF 38 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-331517 [29] WPIDS
DNN N2000-249674 DNC C2000-100530
TI A substrate for a lithographic plate is formed by graining a surface, anodizing and coating with a polymer in the presence of an electric current.
DC A89 G07 M11 P75 P84 S06
IN CHAU, T V; MAYERS, F R
PA (GEVA) AGFA-GEVAERT NV
CYC 26
PI GB 2343680 A 20000517 (200029)* 14p
EP 1000768 A2 20000517 (200029) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2000141938 A 20000523 (200033) 5p
ADT GB 2343680 A GB 1999-25553 19991029; EP 1000768 A2 EP 1999-203681 19991103; JP 2000141938 A JP 1999-321194 19991111
PRAI GB 1998-25822 19981116
AB GB 2343680 A UPAB: 20000617
NOVELTY - A lithographic plate support is made by graining at least one

surface of a metal substrate, applying an anodic layer to the grained surface(s) and then treating the anodized surface(s) with a polymeric aqueous solution while applying a constant voltage or constant current.

DETAILED DESCRIPTION - The polymeric solution comprises a copolymer of acrylic acid and vinylphosphonic acid.

USE - Fabricating lithographic printing plate substrates

ADVANTAGE - The process produces a plate with improved clean-up properties, enhanced run length and excellent corrosion resistance.

Dwg.0/0

TECH.

- METALLURGY - Preferred substrate. The substrate comprises aluminum or an aluminum alloy containing small amounts of manganese, nickel, cobalt, zinc, iron, silicon or zirconium.

Preferred process . Polymer treatment is carried out at 5-80 degrees C for a dwell time of. . . platinum, aluminum, carbon, stainless or mild steel. The graining may be carried out using electrochemical graining using a mineral or **organic acid solution** such as hydrochloric or acetic acid. The surface may be degreased in an alkaline solution prior to graining and subjected. . . graining process. The anodic film is formed by passing the grained substrate through a bath containing an aqueous mineral or **organic acid**, preferably **sulfuric acid**, while applying an electric current. Once formed the plate may be coated with a light sensitive material.

TECHNOLOGY FOCUS -. . .

L19 ANSWER 35 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-273066 [24] WPIDS

DNC C2000-083478

TI Preparation of 2- and 4-hydroxymandelic acid comprises condensing glyoxylic acid with phenol, followed by elution separation on an anion exchange resin, useful as starting materials for e.g. pharmaceuticals and agrochemicals.

DC B05 C03 E14

IN KESSELS, R

PA (KESS-N) KESSELS SA GERARD

CYC 27

PI EP 987245 A1 20000322 (200024)* EN 10p

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

NL 1010090 C2 20000317 (200028)

JP 2000109447 A 20000418 (200030) 8p

EP 987245 B1 20020313 (200219) EN

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

US 6359172 B1 20020319 (200224)

DE 69901015 E 20020418 (200234)

ADT EP 987245 A1 EP 1999-202931 19990909; NL 1010090 C2 NL 1998-1010090

19980915; JP 2000109447 A JP 1999-262162 19990916; EP 987245 B1 EP

1999-202931 19990909; US 6359172 B1 US 1999-396397 19990915; DE 69901015 E

DE 1999-601015 19990909, EP 1999-202931 19990909

FDT DE 69901015 E Based on EP 987245

PRAI NL 1998-1010090 19980915

AB EP 987245 A UPAB: 20000522

NOVELTY - Preparation of 2- and 4-hydroxymandelic acid comprises condensation of glyoxylic acid with phenol, followed by separation of excess phenol from the products on an anion exchange resin, and then separation of the mixture of the two product isomers.

DETAILED DESCRIPTION - Preparation of 2- and 4-hydroxymandelic acid comprises condensation of glyoxylic acid with phenol. The reaction is characterized by the elution-separation on an anion exchange resin of the excess phenol from the products followed by separation of the 4-hydroxymandelic acid in the form of acid or salt, and finally the

2-hydroxymandelic acid, also in the form of acid or salt, depending on the desorbants.

USE - Hydroxymandelic acids are useful starting materials in the fine chemicals, pharmaceutical and agrochemical industry e.g. for atenolol, amoxycillin, ethylene diamine-N,N'-bis(2-hydroxyphenyl acetic acid).

ADVANTAGE - The two isomers of hydroxymandelic acid are easily separated without the use of toxic or flammable solvents (giving 5:95 and 95:5 mixtures), and the total yield based on glyoxylic acid is almost 100%.

Dwg.0/0

TECH.

or other hydrocarbon, or mixtures of these). The hydroxymandelic acids are eluted by means of an acid, base or salt **solution**. Especially, the **acid** is hydrochloric, **sulfuric**, carbonic, sulfamic, phosphoric, boric, nitric, formic, acetic, chloroacetic, propionic, methanesulfonic, benzenesulfonic or p-toluenesulfonic acid, carbon dioxide, a 1-14C **organic acid** or a mixture of these. The base is sodium, potassium, lithium, calcium or ammonium hydroxide, hydrazine, methylamine, ethylamine, aniline, ethylenediamine, . . . different eluents, and they are in the form of a sodium, potassium, lithium, ammonium, methylammonium, tetramethylammonium, 2-18C ammonium, ethylene diamine, **magnesium**, or calcium or other group II metal cation salt. The separation of the isomers is by means of a simulated.

L19 ANSWER 36 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-097915 [08] WPIDS

DNC C2000-028528

TI Markers for oil distillation products.

DC E21 H06

IN TRAVERSO, E

PA (ITAD-N) SOC ITAL ADDITIVI CARBURANTI SRL; (SIAC-N) SIAC SOC ITAL ADDITIVI CARBURANTI SPA

CYC 77

PI WO 9967346 A1 19991229 (200008)* EN 31p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL

OA PT SD SE SL SZ UG ZW

W: AL AU BA BB BG BR CA CN CU CZ EE GE HR HU ID IL IN IS JP KP KR LC

LK LR LT LV MG MK MN MX NO NZ PL RO RU SG SI SK SL TR TT UA US UZ

VN YU ZA

AU 9949004 A 20000110 (200025)

BR 9911402 A 20010320 (200123)

EP 1097188 A1 20010509 (200128) EN

R: AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LV MK NL PT RO SE SI

KR 2001052979 A 20010625 (200173)

US 6339145 B1 20020115 (200208)

IT 1301804 B 20000707 (200212)

IT 1302017 B 20000720 (200213)

EP 1097188 B1 20020410 (200227) EN

R: AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LV MK NL PT RO SE SI

DE 69901258 E 20020516 (200240)

ZA 2000007416 A 20020529 (200240) 42p

JP 2002518581 W 20020625 (200243) 30p

ADT WO 9967346 A1 WO 1999-EP4354 19990623; AU 9949004 A AU 1999-49004

19990623; BR 9911402 A BR 1999-11402 19990623, WO 1999-EP4354 19990623; EP

1097188 A1 EP 1999-932715 19990623, WO 1999-EP4354 19990623; KR 2001052979

A KR 2000-714371 20001218; US 6339145 B1 WO 1999-EP4354 19990623, US

2000-736022 20001219; IT 1301804 B IT 1998-MI1454 19980625; IT 1302017 B

IT 1998-MI1881 19980811; EP 1097188 B1 EP 1999-932715 19990623, WO

1999-EP4354 19990623; DE 69901258 E DE 1999-601258 19990623, EP

1999-932715 19990623, WO 1999-EP4354 19990623; ZA 2000007416 A ZA

2000-7416 20001212; JP 2002518581 W WO 1999-EP4354 19990623, JP

2000-555992 19990623

FDT AU 9949004 A Based on WO 9967346; BR 9911402 A Based on WO 9967346; EP 1097188 A1 Based on WO 9967346; US 6339145 B1 Based on WO 9967346; EP 1097188 B1 Based on WO 9967346; DE 69901258 E Based on EP 1097188, Based on WO 9967346; JP 2002518581 W Based on WO 9967346
PRAI IT 1998-MI1881 19980811; IT 1998-MI1454 19980625
AB WO 9967346 A UPAB: 20000215

NOVELTY - Amino azoic dyes have high specific absorbance in extraction acid solution and are effective markers for oil distillation products.

DETAILED DESCRIPTION - Markers of oil distillation products comprise amino azoic dyes of general formula (I) or their concentrated compositions having high dry titer in organic solvents containing 40-100 wt.% of the azodyes.

R1 = 4-20C alkyl;

R2, R3 = hydrogen, methyl, ethyl, OCH3 or OC2H5;

R4, R5 = hydrogen, methyl or ethyl;

X = hydrogen or OH;

Y = hydrogen or a polyisocyanate chain of formula (II); and

n = 1-4.

USE - For use in oil distillation products e.g. petrols and gas oils.

Dwg.0/0

TECH.

xylene, alkylnaphthalenes, 10-11C aromatic, 2-butoxyethanol, butylcellosolve acetate and diacetonalcohol. The amino azoic dyes are extracted from the oil product by **acid solutions** of strong inorganic and/or **organic acids**, comprising 5-90% aqueous **solution** of strong **acid** of molarity 0.5 or more and 10-95 % hydrosoluble organic solvent which is alcohols, polyols, ethers, alcohols, dimethylformamide or dimethylsulfoxide. A salt, preferably **zinc** chloride, calcium chloride, **zinc sulfate** or aluminum chloride, is added in an amount 5-20% w/v. The markers are added to the oil distillation products in.

L19 ANSWER 37 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-052191 [04] WPIDS

DNC C2000-013405

TI Detecting hybridized biomolecules, useful for genetic analysis, biomolecular diagnostics and sequencing by hybridization.

DC A96 B04 D16

IN RAMPAL, J B

PA (BECK-N) BECKMAN COULTER INC

CYC 1

PI US 5985567 A 19991116 (200004)* 28p

ADT US 5985567 A US 1997-912154 19970815

PRAI US 1997-912154 19970815

AB US 5985567 A UPAB: 20000124

NOVELTY - Detecting hybridized biomolecules comprising treating single stranded probes with a pre-treatment solution, is new.

DETAILED DESCRIPTION - Detecting hybridized biomolecules comprises:

(a) providing single stranded probe biomolecules on a solid support;

(b) pre-treating the probes with a pre-treatment solution to produce a signal having an increased intensity of at least two times compared to a method not including the pre-treating step;

(c) applying a buffer solution to the single stranded probe biomolecules;

(d) hybridizing the single stranded probe biomolecules with target biomolecules, where the targets are in solution, to form a hybridization complex; and

(e) developing and detecting the signal intensity.

An INDEPENDENT CLAIM is also included for a kit for detecting hybridized biomolecules.

USE - The method is useful for genetic analysis, biomolecular diagnostics and sequencing by hybridization.

ADVANTAGE - The method increases the occurrence of hybridization

between probe biomolecules and target biomolecules and enhances hybridization signal intensity and sensitivity. The method is cheaper since relatively less target sample is required compared to the prior art. Dwg.0/14

TECH.

guanidinium thiocyanate, guanidinium isocyanate, spermine, spermidine, glyoxal, alcohols and 1,1,3,3-tetramethyl urea. The solution of the denaturant further comprises sodium dodecyl **sulfate** (SDS) and/or ethylenediaminetetra-acetic acid (EDTA). The pre-treatment solution comprises an **organic acid** selected from acetic acid, formic acid, trifluoroacetic acid and trichloroacetic acid.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Solution: The . . . having a concentration of 10 molar or less and further comprises 10 millimolar ethylenediaminetetra-acetic acid (EDTA) and 0.01% sodium dodecyl **sulfate** (SDS). The pre-treatment solution comprises a salt selected from sodium chloride, potassium chloride, lithium chloride, sodium acetate, sodium citrate, sodium phosphate, **magnesium** chloride, manganese chloride, cesium chloride, barium chloride and SDS. The pre-treatment **solution** comprises hydrochloric **acid** having a concentration of 1 N.

L19 ANSWER 38 OF 38 WPIDS (C) 2002 THOMSON DERWENT

AN 2000-021907 [02] WPIDS

CR 1997-457523 [42]

DNN N2000-016208 DNC C2000-005193

TI Enzymatic detergent drain cleaner composition.

DC A97 D16 D25 E19 P43

IN AHMED, F U; GOLDSCHMIDT, J E; LA COSSE, G E

PA (KAYC-N) KAY CHEM CO

CYC 1

PI US 5975095 A 19991102 (200002)* 15p

ADT US 5975095 A CIP of US 1996-610946 19960305, US 1998-95719 19980611

PRAI US 1998-95719 19980611; US 1996-610946 19960305

AB US 5975095 A UPAB: 20000112

NOVELTY - An enzymatic detergent drain cleaner composition comprises an acid lipase with hydrolytic activity to glyceride linkages and an acid cellulase enzyme with hydrolytic activity to beta-glycosidic bonds to degrade and remove bacterial cellulose and glycerides.

DETAILED DESCRIPTION - An enzymatic detergent drain cleaner (I) comprises:

- (1) 0.005-20 wt% of an acid lipase having hydrolytic activity to ester bonds, specific to glyceride linkages;
- (2) 0.005-20 wt% of an acid cellulase enzyme having hydrolytic activity specific to beta -glucosidic bonds;
- (3) 1-70 wt% of a water soluble carbonate salt;
- (4) 1-70 wt% of a water soluble acid that reacts in aqueous medium at standard temperature and pressure with the carbonate salt to form at least 100 ppm CO₂ that dissolves in the aqueous medium;
- (5) 0.1-10 wt% of a surfactant; and
- (6) 0.05-5 wt% of a thickening agents.

INDEPENDENT CLAIMS are also included for:

- (1) an enzymatic detergent drain cleaner comprising:
 - (a) 0.005-20 wt% of an acid lipase having hydrolytic activity to ester bonds, specific to glyceride linkages;
 - (b) 1-70 wt% of a water soluble carbonate salt;
 - (c) 1-70 wt% of a water soluble acid that reacts in aqueous medium at standard temperature and pressure with the carbonate salt to form at least 100 ppm carbon dioxide (CO₂) that dissolves in the aqueous medium;
 - (d) 0.1-10 wt% of a surfactant; and
 - (e) 0.05-5 wt% of a thickening agents;
- (2) a composition (II) for removing or preventing bacterial cellulose and glyceride deposits in an aqueous system comprising an aqueous solution

of an acid lipase enzyme in an amount of 0.005 wt% and having hydrolytic activity to ester bonds, specific to glyceride linkages and an acid cellulase enzyme in an amount of 0.005 wt% and having hydrolytic activity specific to beta -glucosidic bonds, the aqueous solution having a dissolved CO₂ concentration of at least 100 ppm at standard temperature and pressure; and

(3) a method of removing or preventing bacterial cellulose and glyceride deposits in an aqueous system comprising:

(a) forming an aqueous solution by adding together (I) and an aqueous medium;

(b) contacting an aqueous system with the aqueous solution to at least partially hydrolyze the bacterial cellulose and glycerides; and

(c) removing the partially hydrolyzed bacterial cellulose and glycerides from the aqueous system.

USE - The cleaner is useful for removing or preventing glyceride deposits and cellulose deposits produced by microorganisms such as Acetobacter bacteria in aqueous systems.

ADVANTAGE - The cleaners, compositions and methods are safe and economical, do not require the use of chemicals that are hazardous or toxic to humans and other life forms, decrease the risk of environmental harm, and minimize ecological harm to the aqueous systems. The cleaner containing both acid lipase and acid cellulase enzymes has enhanced hydrolytic action of cellulose and glycerides compared to cleaner containing only acid cellulase enzyme.

Dwg.0/0

TECH.

The water soluble carbonate salt is selected from lithium carbonate/bicarbonate, sodium (Na) and potassium (K) sesquicarbonates, Na-carbonate/bicarbonate, K-carbonate/bicarbonate, Calcium-carbonate/bicarbonate and **Magnesium**-carbonate/bicarbonate.

Preferred Acid: The water soluble acid is selected from formic acid, acetic acid, hydroxy acetic acid, propionic acid, butyric acid, valeric.

. . . maleic acid, benzoic acid, fumaric acid, isophthalic acid, terephthalic acid, suberic acid, pimelic acid, malonic acid, glutaric acid, adipic acid, **lactic acid**, acrylic acids, polyacrylic acids, hydrochloric acid, hydrofluoric acid, hydrobromic acid, hydroiodic acid, **sulfuric** acid, sulfamic acid, sulfurous acid, phosphoric acid, phosphorous acid, polyphosphoric acid, hypophosphorous acid and boric acid.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY. . . maleic acid, benzoic acid, fumaric acid, isophthalic acid, terephthalic acid, suberic acid, pimelic acid, malonic acid, glutaric acid, adipic acid, **lactic acid**, acrylic acids, polyacrylic acids, hydrochloric acid, hydrofluoric acid, hydrobromic acid, hydroiodic acid, **sulfuric** acid, sulfamic acid, sulfurous acid, phosphoric acid, phosphorous acid, polyphosphoric acid, hypophosphorous acid and boric **acid**.

Preferred **Composition**: Glucano-delta-lactone, sodium bisulfate or sodium bisulfite are used in place of the water soluble acid. The cleaner is free of. . .